



THE BEST WAY TO CUT & GROOVE



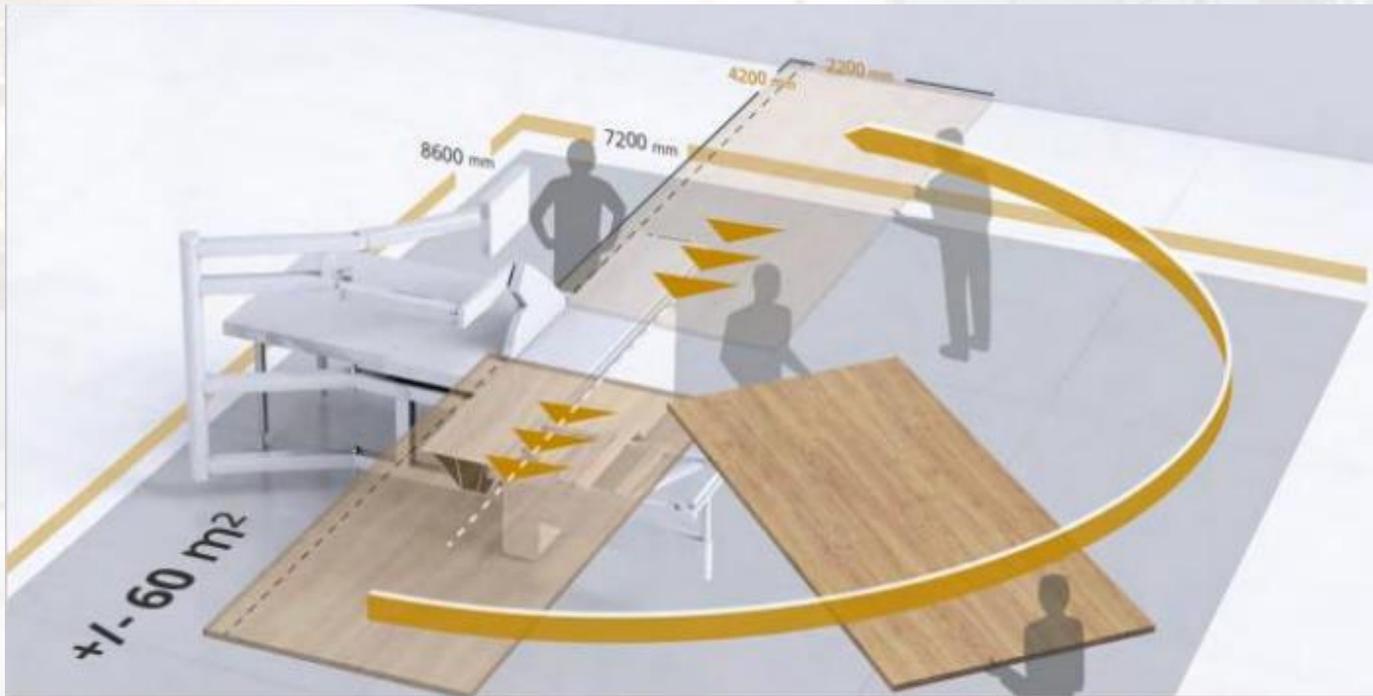
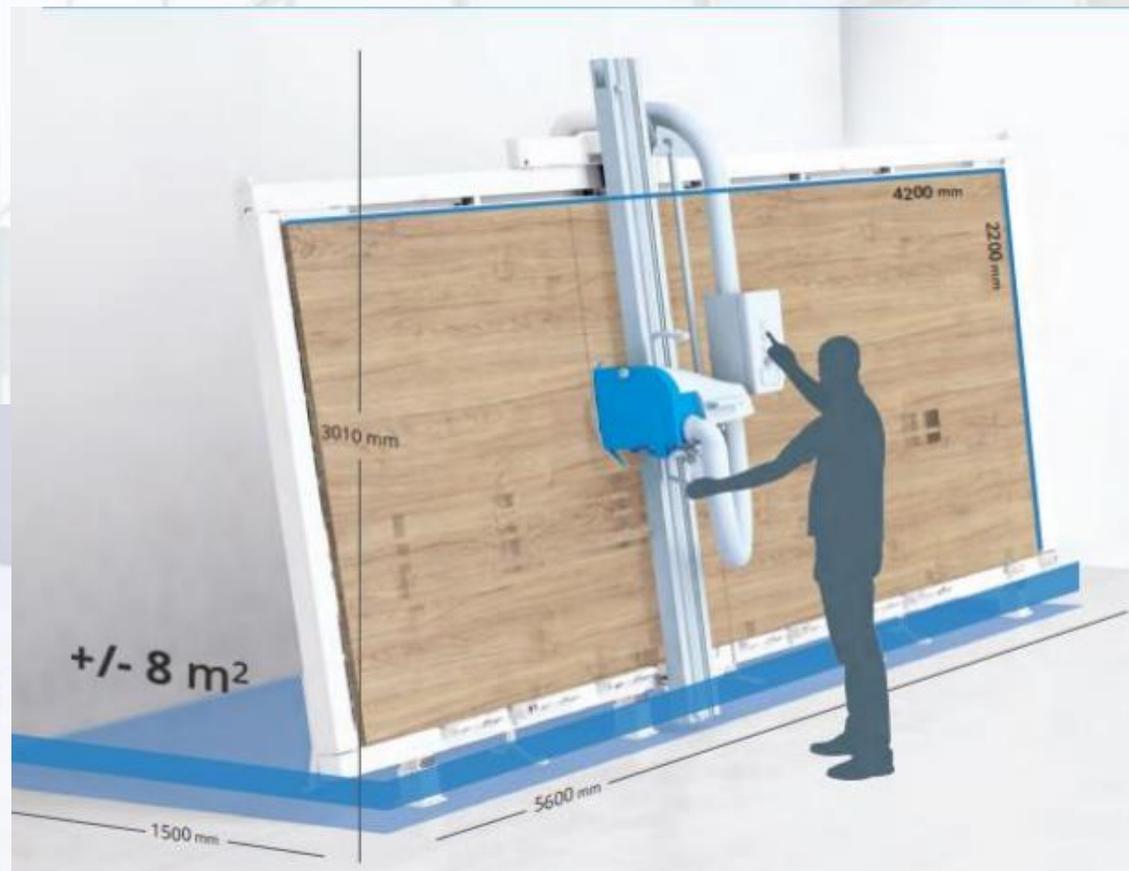
The Advantages of Vertical Panel Saws

The purpose of any Vertical Panel Saw is to cut flat panels of various materials. Compared to table saws or sliders, a vertical saw can cut sheets more efficiently and safely while conserving valuable floor space.

- **Efficient:** Classical circular saws require more working area both for loading/unloading and manual operations. A vertical panel saw can be installed close to a wall and every panels to cut can be easily positioned on rolling supports.
- **Safe:** The covered saw blade **moves** on a carriage that reduces any risk to the operator who cuts the different materials, without touching the panel while cutting.
- **Precise:** Compared to table saws the cutting accuracy cannot be matched. The material is stationary and the saw head moves along precision guides for a cut that is clean and square.
- **Flexible:** Vertical Saws can be configured for any type of sheet processing including Wood, Sandwich, Insulating, Composite, Plastic, and Gypsum Board.



Minimum Space & Maximum Performance
Work Safely
Work Easier & Better



LOWER SUPPORTS

Highest cutting accuracy by:

1. fully welded steel frame
2. heavy structure
3. suitable floor
4. correct assembly
5. high panel stability - and here the standard lower supports play a fundamental role

STANDARD FEATURE

Aluminum supports with phenolic soles on the top, for a safe support of the panel (no scratches), and Lift-up rollers for a better sliding it.



OPTIONAL

Base bottom on braking or free rollers



RIVING KNIFE

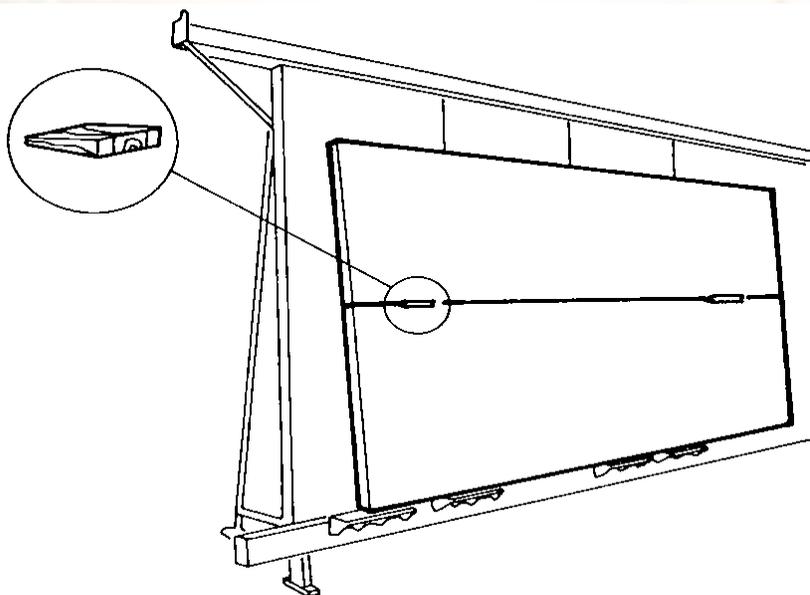


It is a shaped steel piece (see picture), which protects against the ejection of blade pieces (in case of breakage) towards the upper part of the blade head.

DURING HORIZONTAL CUTS

During the execution of horizontal cuts, it prevents the blade body from being crushed by the top part of the panel being cut.

This also answers the classic question, especially of those unfamiliar with this type of machinery: *during horizontal cuts, does the upper part of the panel fall down?* no, thanks to the riving knife !



DURING VERTICAL CUTS:

it enables to remove wood splinters or chips granting a clean cutting.

In case of very thick panels with a large surface area it is advisable to fit a few spacers with the same thickness as the blade teeth to prevent quality problem (classical procedure for vertical panel saw).

VERTICAL PANEL SAWS FAMILIES



SVP 133/145

Cutting depth 60 mm,
blade Ø 250 mm



SVP 320/420

- Standard features :
- independent motorized scoring system (Ø 80) - see slide 23.
 - linear guides for saw carriage sliding.

SVP 950

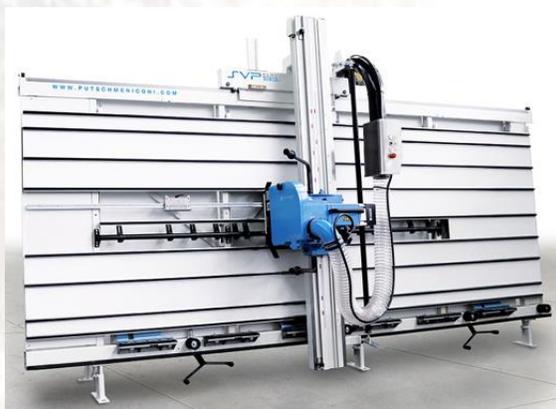
Cutting depth 80 mm, blade Ø 300 mm



Manual Models

Cutting depth mm 60

SVP 133 BABY



SVP 133/145



SVP 320/420

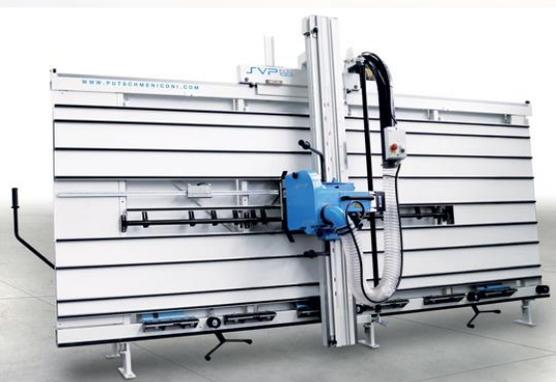


Cutting depth mm 80

SVP 950M



SVP 133/S BABY



SVP 133/S – SVP 145/S



SVP 420 CSH



Models SVP 320-420 are equipped with independent motorized scoring system (Ø 80) - see slide 23 - and linear guides for saw carriage sliding.

"S" models: 133/S BABY, 133/S, 145/S see slides 17-18

Semi-Automatic Models

- Cutting size Setting : Manual
- Cutting Execution : Automatic (or manual if selected)

Cutting depth mm 60



SVP 145A



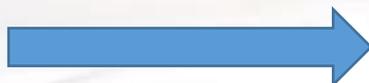
SVP 420A



SVP 420A CSH



Cutting depth mm 80



SVP 950A



All semi-automatic models have on board :

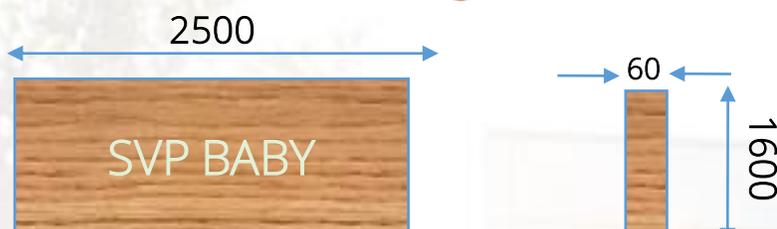
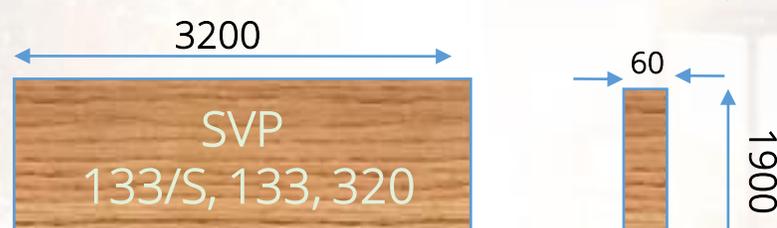
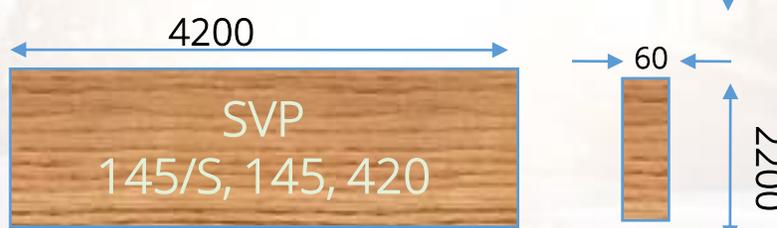
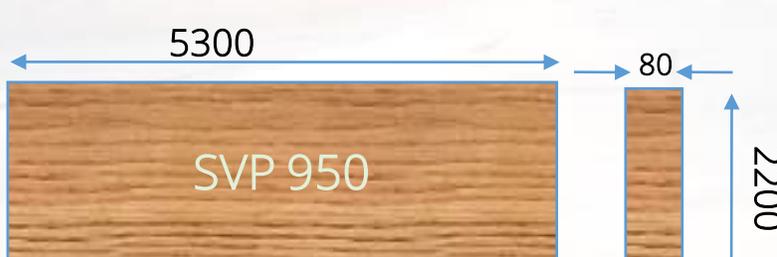
- Automatic feed speed, adjustable by inverter
- Pneumatic locking of the carriage for horizontal cuts

Models SVP 420A and 420A CSH are equipped with independent motorized scoring system (Ø 80) - see slide 23 - and linear guides for saw carriage sliding.

Automatic Model – SVP 420AT

- Standard cutting sizes mm 4200x2200x60
- Programming System for Horizontal and Vertical cuttings (automatic positioning + automatic cuttings)
- Automatic feed speed, adjustable by inverter
- Touch screen control
- Linear guides for saw carriage sliding
- Scoring Blades (Ø 80mm, with independent motor)
- End-panel limit switch
- Pneumatic locking of the carriage for horizontal cuts
- Pneumatic lift-up rollers
- Ethernet connection + USB port for PLC updating and cutting patterns transfer
- Multilingual diagnostic program and alarm function
- Instruction booklet and spare parts list on board including videos

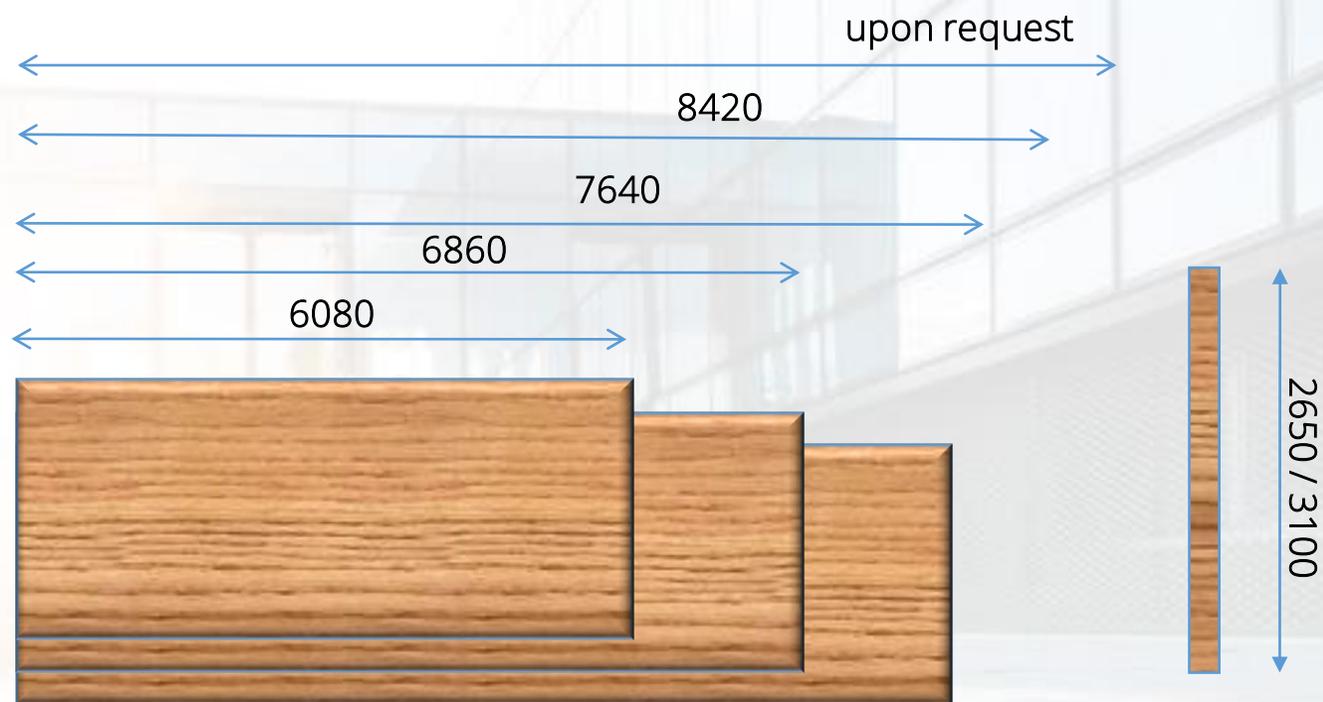


Standard - Cutting Sizes (mm)	Blade Ø (mm)*	Power	Rpm at 50Hz	Rpm at 60Hz
 <p>SVP BABY</p>		5 HP (3.7 Kw)	5300	6400
 <p>SVP 133/S, 133, 320</p>		5 HP (3.7 Kw)	5300	6400
 <p>SVP 145/S, 145, 420</p>		5 HP (3.7 Kw)	5300	6400
 <p>SVP 950</p>		7,5 HP (5.6 Kw)	5300	6000

* hole 30 mm + tooth thick 3,2 mm

Models SVP 320-420 are equipped with independent motorized scoring system (Ø 80) - see slide 23 - and linear guides for saw carriage sliding !

Special Cutting Sizes (mm)

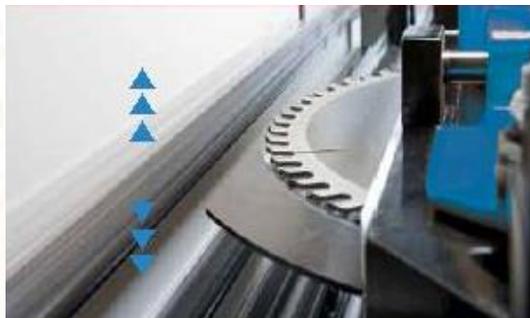


Max. depth of cut (mm)

Standard	Special
60	65 / 70*
80	85 / 90*

* Risk of chipping the back of the panel: increasing the depth of cut reduces the projection of the blade

Automatic or Manual shifting frame during horizontal cuts to avoid the cutting of plastic strips



AUTOMATIC

It's **ELECTRIC**: the only one in the market !

Thanks to a limit-switch under the carriage connected to another limit-switch and a motor in the back, the frame moves in advance before the plunging of the saw-head.

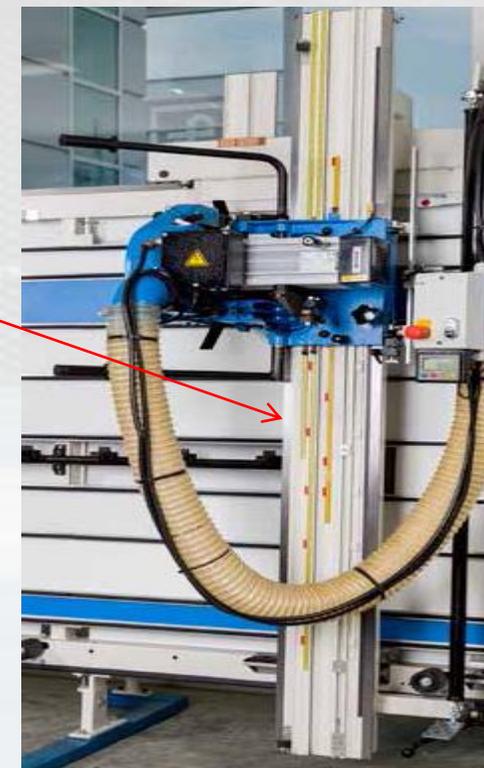
The above system excludes any risk to cut the plastic strips, unlike our competitors who use a mechanic shifting frame that moves only when saw-head is plunging.

MANUAL ("S" model : SVP 133/S BABY, SVP 133/S and SVP 145/S) - Frame moved by the hand-lever



On the metric scales of the beam there are some **red points** each one in correspondence of the pvc strips
- see slide 18 -

When the measuring index is over one of them, before plunging the saw head for cutting, the operator has to move the frame by the hand-lever
- see slide 18 -





" S " MODELS – SVP 133/S BABY, SVP 133/S and SVP 145/S.

"S" means *simple*, these are the cheap versions of the well-known standard models SVP 133 Plus and SVP 145 Plus and differ in:

1. Simple electric cabinet (without a clean contact allowing simultaneous start-up with the dust extractor)
2. Simple push-button panel
3. No limit switches for vertical cuttings (motor always runs, even if beam is unlocked)
4. No limit switches for horizontal cuttings (motor always runs, before plunging operator has to move the frame by the **hand-lever** if index is on red point)

On the metric scales of the beam there are some **red points**, each one in correspondence of the pvc strips.

When the measuring index is over one of them, before plunging the saw head for cutting, the operator has to move the frame by the hand-lever located on the left side.

"S" models are suitable for:

1. those customers who cut a few hours per day/week
2. one or very few operators using the machine

For those customers who cut a lot, or have many people using the machine we recommend the standard versions with the Automatic/Electric shifting frame (including also the limit switches for vertical cuts)



Hand-lever



red points

Manual models - handles for saw-head plunging

SVP 133/145, 133/S-145/S, 320/420

The ergonomic lever for saw-head plunging allows a comfortable handling for vertical and horizontal cuts, especially for the second ones because its plunging allows the mechanical locking of the carriage instead of using the classic knob**.

The mechanical locking is useful in case of high trims where it is impossible to reach the knob by hand.

** Reminder:

on models SVP 145, 145/S and SVP 420 the max. height of horizontal cut is mm 2080 so the knob is approx. 185 cm from the ground.

Alternatively, as option, the locking of the carriage can be pneumatic from push-button panel.

Vertical cutting



Horizontal cutting



Manual models - handles for saw-head plunging

SVP 950M

Vertical cutting - Head mechanical plunging

Mechanical system that automatically plunges the head in the **vertical cutting**, by simply pushing the head up and then cut by pulling the tube.



Horizontal cutting



Reminder:

max. height of horiz. cut is 2100 mm so the knob is approx. 185 cm from the ground.

Alternatively, as option, the locking of the carriage can be pneumatic from push-button panel



The handles on the head are not the long and ergonomic ones of the classic models 133/145, therefore in the case of very high trims the procedure is to cut by pushing the beam, obviously after locking the carriage by its knob or the pneumatic option (from push-button panel)

DUST EXTRACTION SYSTEMS

Integrated dust exhauster with bag** Pre-arranged for independent dust extraction system



The " bag solution " is not recommended for plastics or composites, in other words, for wooden panels only and take in account that the bag must be emptied once full !

It is understood that a machine connected to a dust extraction system is the most suitable solution to get a better dust extraction.

The advantage of the rear bag can be for those customers who do not have any dust extraction system yet or already engaged with other machines so that this allows to start working at least. Later on it can be replaced with conversion parts (we've a Kit) for the connection to a dust collector plant.

The dust exhauster with bag is not allowed everywhere, so before proposing it, make sure of your local regulations regarding dust emissions.

** available ONLY for SVP 133/145, 133/S-145/S

TRK, Ø 100mm

Ø 100mm

SCORING UNITS (required for wooden panels with melamine coating only ! Not needed for plastics, composites and so on ..)

1. Scoring unit with 2 split saw blades (pre-cutting on melamine board): nr.2 types



A) Independent motorized scoring system (Ø 80mm)



Independent motorized scoring system with automatic power up. The scoring unit is inserted via a lever in the machine head. The lever, mechanically, activates a switch inside the cutting head, which starts the engine of the scoring unit.

This system permits to use the scoring unit only when needed i.e., when disabled the motor is switched off automatically.

More performing scoring unit thanks to the independent motor which allows a considerably lower dynamic stress of the belt and the parts around it.

Exclusive system available only and standard on SVP 320-420 models.

B) Belt-driven scoring unit (Ø 70mm)



Connected to the main motor directly with a sturdy belt.

Both saw blades always run regardless of whether the scoring unit is activated or not.

Available on SVP 133/145, and their "S" versions (slides 17-18)

2. Scoring unit with 2 H.M. Knives



Nr.2 H.M. knives that scratch on the melamine and the main blade passes through.

These knives have a rhomboid shape and when worn out they can be rotated 4 times.

Available on "S" models (slides 17-18), SVP 133/145 PLUS and SVP 950

This can also be easily retrofitted on existing models.

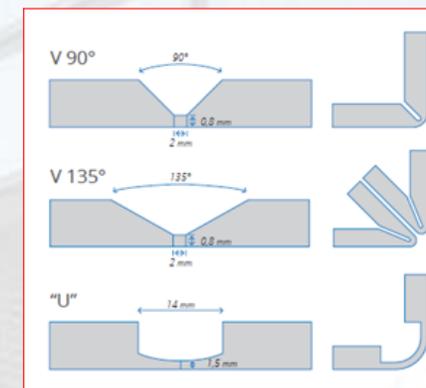
V-GROOVING OPERATIONS ON ACM (Aluminum Composite Materials)

V-Grooving Kit with adjustable thickness stop

Materials such as Alucobond®, Dibond®, Etalbond®, Reynobond®, in addition to being cut are generally v-grooved



V-Grooving is a soft operation, it's recommended to put a wooden panel behind the composite sheet.



Specific pressure shoe to use the cutter, V-Groove depth is adjusted by the device Adjustable thickness Stop which is already fitted on the housing door.



Blade Rotation - RPM

- **Standard:** fixed rpm
- **Optional (except for "S" models):** Inverter for adjustment from 2000 up to 6000 rpm, by means of a potentiometer mounted on the push-button panel.

The above inverter is recommended in case of :

- **Insulating sandwich panels** with sheet metal and aluminum cladding; they are usually in large formats and used for various applications such as roofing, walls and facades, cold rooms, truck interiors, boats, wet room remediation
- **Various types of plastics**
Generally for plastics it's enough to fit the right blade and "play" on the feed speed but according to our experience when you have a combination of many different kind of plastics and different thicknesses, to be cut as a pack or not, the blade inverter it's really very useful.
- **Combining different types of materials** - In this case it is practically mandatory.
Some materials require a lower cutting speed, such as Corian® - see slide 26 - therefore it is imperative a wider rpm range on our machine.

Although we are the manufacturer of the machinery, we cannot know the exact rpm required by each material but only give indicative data based on our experiences and suggest a cutting test to be 100% sure.

Who might give you a more detailed answer:

1. customers
 - a) via the product sheet of the material
 - b) if they already have cutting experience
2. blade manufacturers, according to their kind of tools.



It is understood that an appropriate blade is required for each material - check with your blades supplier.

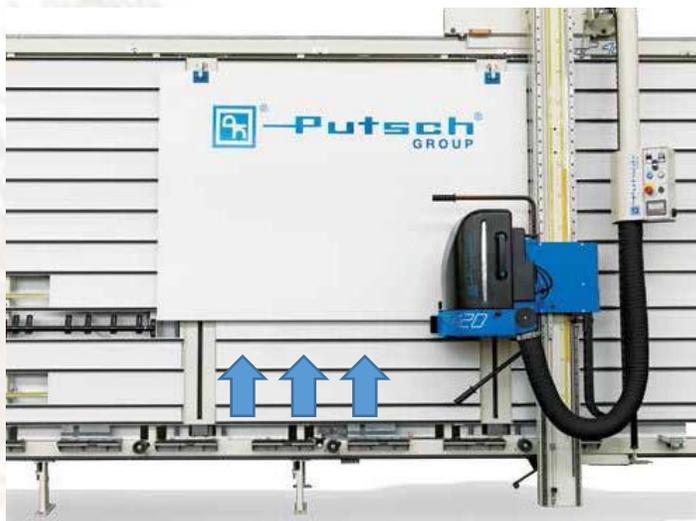
SVP 420 CSH - Clamping System



Manual or Semi-Automatic model equipped with a Clamping System to lift-up and hold the panel allowing the lower trimming without having to rotate it.

This system is in addition to the well-known features of the SVP 420 such as the *independent motor for the scoring unit* and the *sliding of the carriage/saw unit on linear guides.*

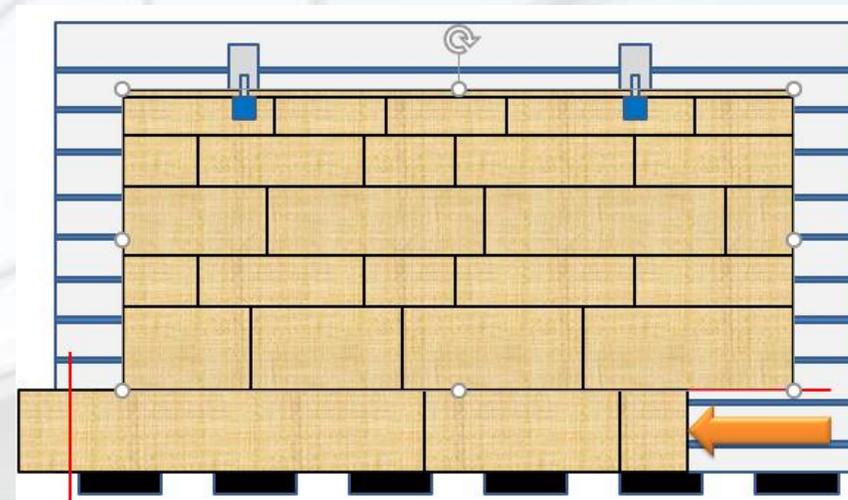
Clamping System allows 3 operations



1. Lift the panel up for the lower trimming

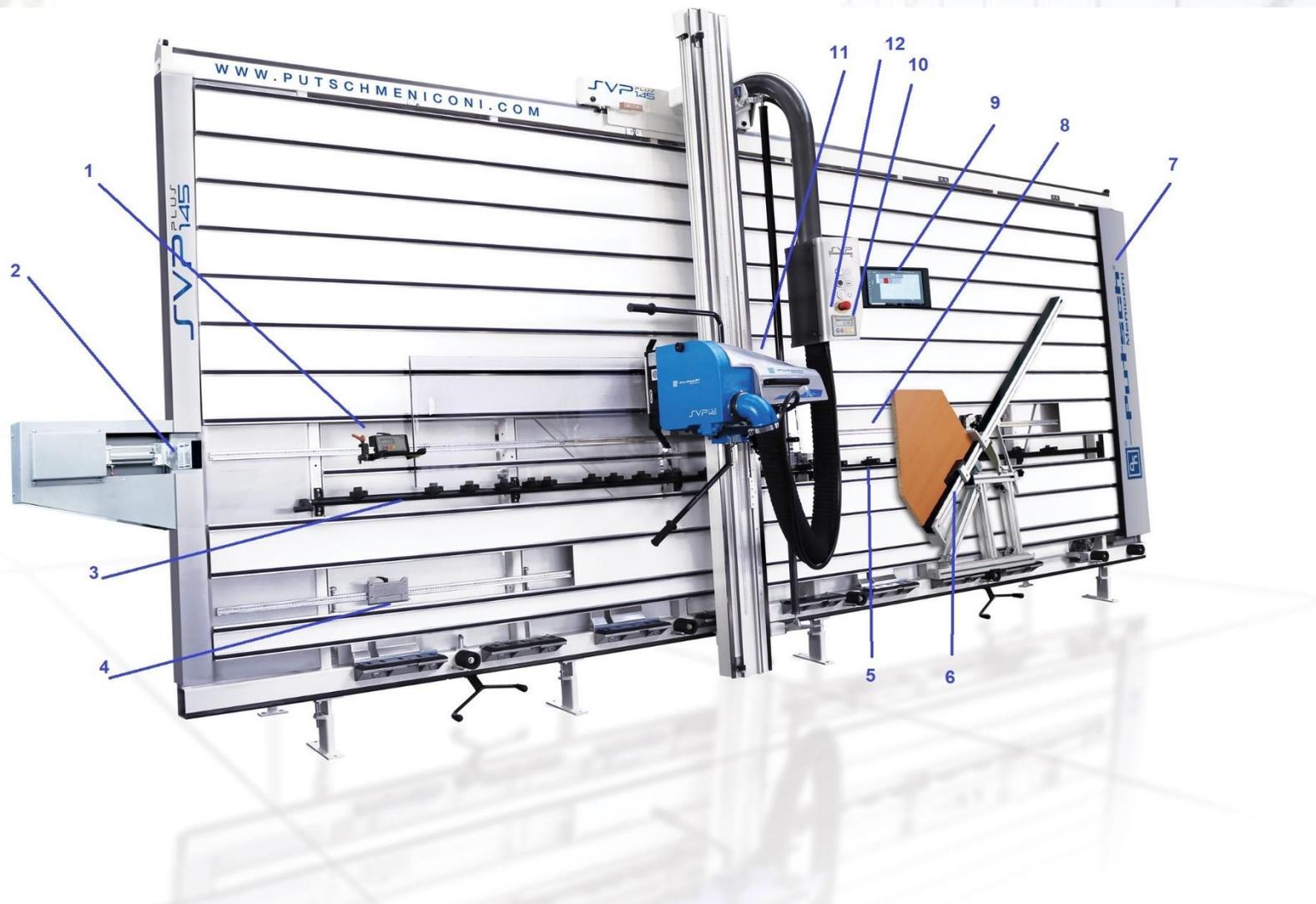


2. Leave the panel on the lower supports, clamp it and cut horizontally avoiding to fit the spacers



3. Cut the strip horizontally and then push the strip against the Supplementary low-level Stop to be cut vertically without discharging it.

In this case it's required a longer frame allowing to slide the strip on all its length.
For example, in case of a panel mm 4000 long it is required a frame with horizontal cutting length mm 5300.



MAIN EXTRAS

1. Electronic Vertical measuring display
2. Posi-System, Electronic Stop
3. Short piece cutting device (standard)
4. Supplementary low-level stop
5. Extra short cutting device
6. Angle cutting device
7. Dust catcher for horizontal cuts (TRK)
8. Sliding support for narrow pieces
9. Putsch Label Optimizer
10. Electronic Horizontal measuring display
11. Repeat cutting device of horizontal strips
12. Warning light for lift-up rollers

Repeat cutting device of horizontal strips



Note: some devices are standard on some models, please check the price list



Electronic vertical measuring display

For a quick and easy reading of the vertical cutting size.

Retrofit: YES

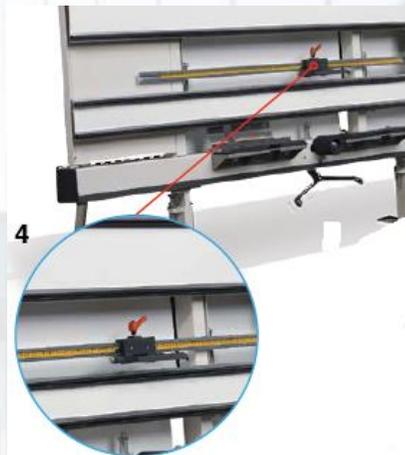


Electronic horizontal measuring display

For a quick and easy reading of the horizontal cutting size.

Useful in case of high trimming especially on those models where the max. height of horizontal cut is mm 2080 (SVP 145/420) or 2100 (SVP 950), allowing a better reading because placed inside the panel control avoiding to see the metric scale at the top of the beam.

Retrofit: YES -but it's recommended to take at the origin.



Supplementary low-level stop

For the cutting of small but HEAVY pieces; instead of to leave them on the mid tilting bar, (short piece cutting device) these can be left on the lower supports and cutting sizes adjusted with proper stop.

Take also into consideration that the distance from the lower supports to the main Stop is 73 cm !

If you have a panel cm 70H, this can not be put against the main stop because it does not reach it; instead of lifting it up to the tilting bar, you can leave it on the lower supports and use the Suppl. Low-level Stop

This device is mainly used for wooden panels.

Retrofit: YES

It is included in the option New Eco System



Extra short cutting device

It is the extension on the right side of the Short piece cutting device which is standard on the left side.

This black tilting bar is useful when you need to cut small panel pieces, instead of leaving them on the lower supports. This extension helps even in case of longer panels.

For example, the standard Short piece cutting device is mm 2340 long, while with the extension it can reach a length of mm 4680.

Retrofit: YES

It is included in the option New Eco System



Repeat cutting device of horizontal strips

Suitable to make several horizontal strips of same size

The concept of horizontal cutting on a vertical panel saw is that the "good part you want to obtain" is the lower one on the lower supports.

With this device you set the measure by its stop and the "good part" is from the top.

Retrofit: YES



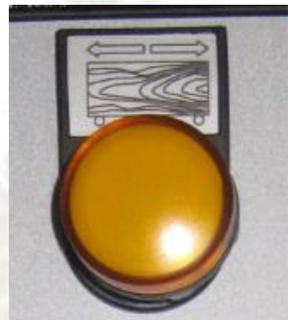
Sliding support for narrow pieces

This support, 76 cm long, slides on the metric scale and it's useful in case of thin panel (mainly plastics) because it improves the rear panel support, avoiding the panel to cut to fold in this empty part of the machine.

During horizontal cuts, its two pvc strips are not cut thanks to the automatic shifting frame.

On the contrary, during the vertical cuts the strips will be cut so when not required it is better not to forget it behind the panel. At worst, after many cuts, just replace them.

Retrofit: YES

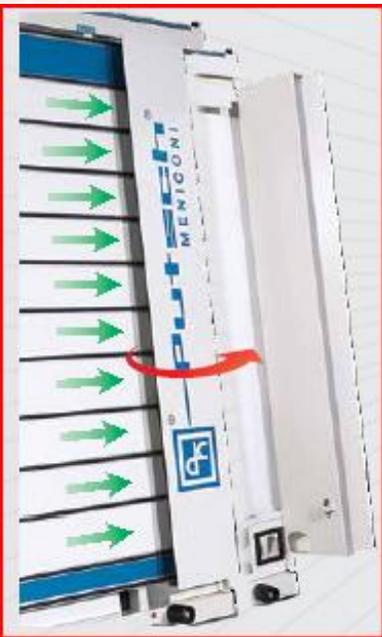


Warning light for lift-up rollers

It is a light alarm mounted on the push-button panel. The light starts flashing if the operator forgets to put down the rollers before starting cutting.

Retrofit: YES -but it's recommended to add it as an extra when ordering the machine.

Dust catcher for horizontal cuts (TRK)



It improves the dust extraction during horizontal cuts, when cutting the panel along the entire length or a short piece close to it.

It is also useful when the machine is installed near a door or transit point.

It must be connected to a dust extraction system, therefore it makes no sense to order it when the machine is equipped just with rear dust bag, otherwise, otherwise, this device will not vacuum dust properly.

Retrofit: YES

It is included in the option New Eco System.

Angle cutting device



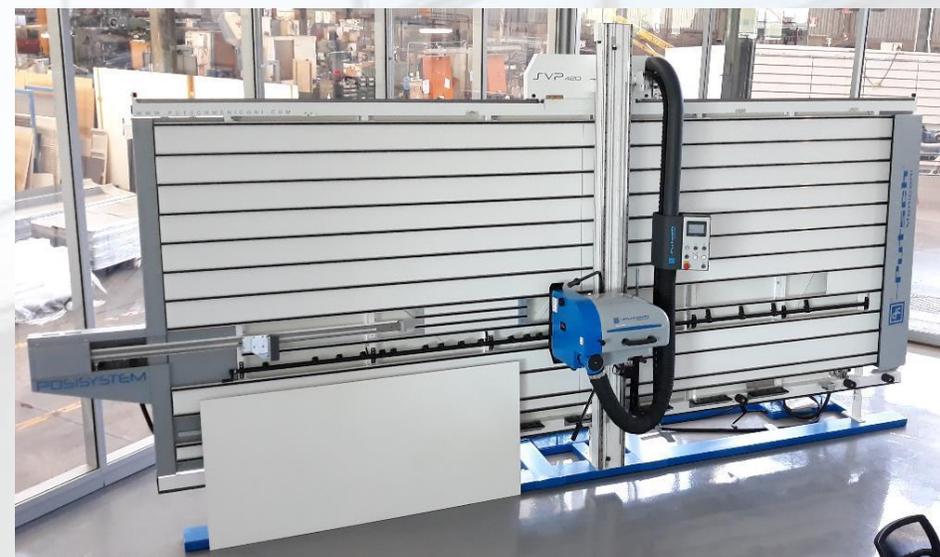
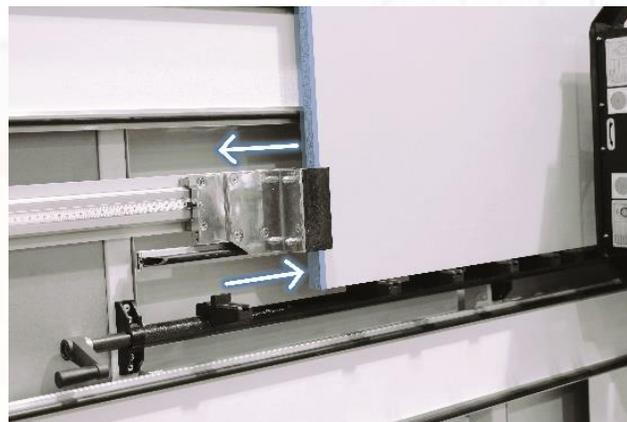
This device enables to cut panels (approx. mt 2x1,5) with an inclination ranging from 0° to 46°.

Thanks to its extremely simple assembly features and versatility, this device can be mounted on any models.

Retrofit: YES

Posi-System : Electronic Stop for vertical cuttings

The operator can set the cutting dimension (for vertical cuts) on the push-button touch panel with the consequent positioning of the electric stop.



With this device the machine is equipped with a push-button touch panel which also allows the function of horizontal measuring display.



The positioning of the cutting head is manual and the cutting dimension is displayed on the screen. It works both on base blocks and short pieces device. It is available the repeating cutting functionality.

When you want to work on horizontal mode, it is possible to send automatically the electric stop out of the working field to allow the operator to cut the maximum dimension of the panel.

Posi-System is standard on SVP 420AT, optional for all models except SVP 133/S -145/S, SVP 420CSH and SVP 420A CSH.

New ECO System

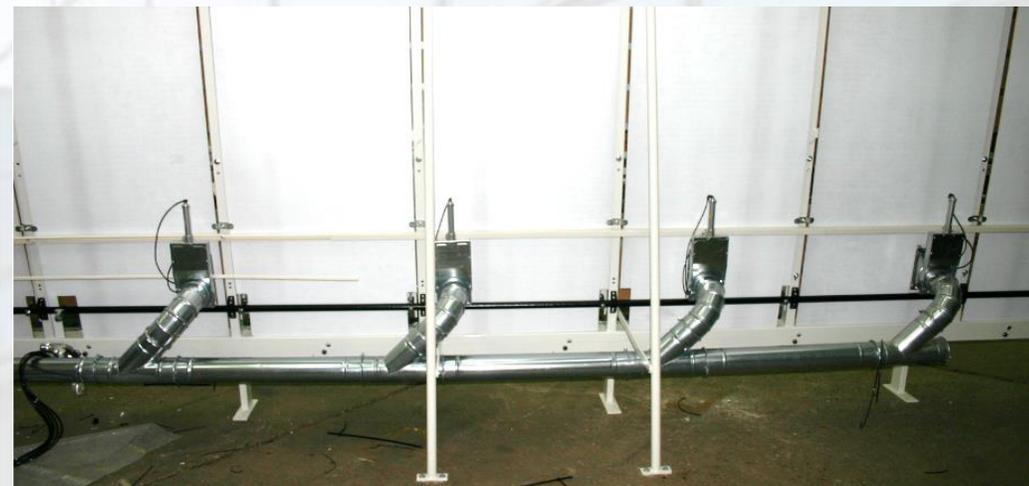
The New Eco System is designed to improve the dust extraction and reduce the dust emissions!!
On vertical cuts through the vertical channels and on the horizontal cuts by the dust catcher (TRK).



This system is highly recommended for dusty materials such as plasterboard/drywall !!

Obviously these materials require a specific dust extractor - check it with your supplier.

The TRK is optional for all models is included in the New ECO System package.



The NEW ECO frame combines the TRK suction system for horizontal cuts with a system of pneumatic shutters designed to significantly increase the suction for vertical cuts by opening only the channel where the operator is cutting.

In other words where you cut the channel is open and works stronger because all the others are closed. Shutters open/close automatically by simply locking the beam to the selected cutting point.

On the back of the frame there are nr.3 dust exits Ø 100 mm each. Air is required, any compressor 200 l/min and 7 bar.

Thin Panel Cutting

Many customers, mainly in the plastic industry, need to cut thin panels (one-by-one instead of a pack) but there's the risk of bending between the pvc strips, especially during the horizontal cut !!

In this case in order to improve the rear support there are 2 solutions:

- A) adding additional pvc strips on the upper part of the frame, above the Short piece cutting device
- B) placing a wooden surface behind the panel to cut and so reducing the cutting depth

It is difficult to say what is the minimum supported cutting thickness without bending the panel, because it depends on the rigidity and density of the panel. For this reason, it is highly recommended to request a sample from the customer and test it on the machine.



Solution A - additional pvc strips above the Short piece cutting device



The distance between the standard strips is mm 164,5

A.1. Double pvc strips

by adding **ONE** additional strip between the standard ones the distance drops to mm 82,25

Versions (mm) additional strips

- 2500x1600 : nr.2
- 3200x1900 : nr.4
- 4200/5300x2200 : nr.7



A.2. Triple pvc strips

by adding **TWO** additional strips between the standard ones the distance drops to mm 54,83

Versions (mm) additional strips

- 2500x1600 : nr.4
- 3200x1900 : nr.8
- 4200/5300x2200 : nr.14

Solution B – Wooden panel + Adjustable thickness stop



1. Put a wooden panel behind the thin one to improve its back support
2. Thanks to the optional Adjustable Thickness Stop fitted in the housing door, the depth of cut can be reduced avoiding to cut completely the wooden panel but just engraving it, so to be used again without requiring a new one which would represent a cost !!



The cost of the Adjustable Thickness Stop varies depending on the machine model, check it on the price list.

Aluminum sheet cutting

The request to cut aluminum sheets is starting to be more and more frequent, therefore before going into detail it is necessary to make a premise: the vertical panel saw was designed to cut this material ! but there are specific machines on the market.

However, within certain limits (small thicknesses) the vertical panel saw can work.

Here below some tests performed with the SVP 145 Plus (no blade inverter, no scoring , no oil but just a standard blade for wood):

Sheet thick: 2 mm

- single sheet: OK
- a pack of 12 sheets (tot. thick 24 mm): OK

Sheet thick: 5 mm

- single sheet: OK
- a pack of 3 sheets (tot. thick 15 mm): OK

It is easier to cut a 24 (or 15) mm pack instead of a whole sheet of that thickness because hardness and overheating are different, having multiple sheets together the air passes through each one.

Having no thicker sheets, we can say that for the cutting of a single sheet up to 5 mm there are no problems and we assume even 7-8 mm work anyway. Obviously a cutting test would be recommended to be 100% sure.

For the pack it is recommended to check every time because it depends on the thickness of each sheet, but the above data help to get an idea.

Regarding type of dust extraction system and blade you are kindly requested to check with your suppliers.

Special Sizes Are... Our Specialty!

When panels are too big, the vertical solution is the best one and with the right quality-price ratio !!

SVP 950A - Cutting sizes mm 14.000 x 3.100 x 90

SVP 420A CSH - Cutting sizes mm 10.000 x 2.900 x 60

