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10<sup>th</sup> YEARS



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Equipment and multi-purpose carrying  
frames for vineyard tractors

**Optima**  
Range







Principle:

- High-clearance frame equipped with a vine branches lifting system and a clip tying device. The branches are lifted by two wide belts driven in rotation and equipped with independent safety devices. A wire is unwound at the rear of these belts, on either side of the row, to hold the branches in vertical position. These two wires are then clipped
- Hydraulic block controlling the setting and the functions of the machine (clip tying device, rotational speed of the belts, etc.)
- Wire feeder receiving 4 spools
- Clip tying device with claws



BEFORE / AFTER



Digital calculator

The digital calculator centralizes all tying machine functions and synchronizes the clip tying



Pair of tips (option)

With low vines, this option prevents the belts from being damaged by rubbing on the ground.



Safety retraction

The belts are equipped with a downwards and upwards safety retraction.

Advantages:

- The rough belts allow optimum lifting of the branches, without constraint or aggressiveness. They also feature comprehensive setting possibilities (tracking, angle and spreading)
- The clip tying device requires little maintenance and setting. The clips are formed by two claws and not by an anvil: this technology avoids shocks and prevents contamination
- High autonomy (5,000 clips)
- Weight: 180 kg
- Independent mono block safety retraction on each of the belts



Pendular frame

The frame of the PA 5000 tying machine comprises a pendular frame with a shock absorber, which can be blocked for road transport.





### Principle:

- Modular cutting bars with rotary 430 mm blades with a rotational speed of the order of 2,000 RPM
- Drive by serially connected hydraulic motors with transmission by special flat belts



### Vertical safety

In the case of a shock, the vertical cutting bars are equipped with a safety system with automatic return motion.

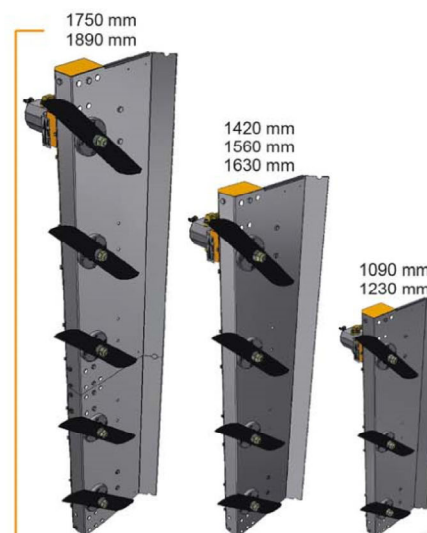


### 5° blade inclination

The 5° blade inclination towards the vegetation prevents repeated cutting and backward projections.

### Models for vineyard tractor

- One half row
- One complete row
- Two half rows
- Two complete rows



### Working height selection



### Maintenance-free cutting bar

The flat belt drive using crowned pulleys requires neither maintenance nor tension check.

### Advantages:

- 5° blade inclination towards the vegetation to prevent repeated cutting and backward projections
- Flow rate 16 l/min
- Maintenance-free flat transmission belts without tensioner
- Quick access to wear parts (international patent)
- Safety retraction with automatic return motion on most of the vertical cutting bars
- Stainless steel sheet metal parts and aluminum components







### Principle:

- A frame with two disc modules equipped with blades performing a shear cut
- The discs are driven by 2 hydraulic motors
- All pre-pruner functions are centralized in a hydraulic block
- Cutting modules opening and closing is controlled by a control switch
- Rotational speed of the discs is approximately 280 RMP for a flow rate from 24 to 40 l/min
- Working speed up to 10 km/h
- Available in 2 versions (short and long frame) with a stack of 6 to 28 disks whose interval is 60 or 90mm

### Advantages:

- The shape of the disc ensures a good grip on the branches and a regular feeding of the machine, without damaging the tying wires
- The 60 mm interval between the disks furthers the cleaning of the tying wires thanks to the cutting sections mounted on a carrier disk whose thickness prevents the wire from penetrating between the teeth of the cutting sections
- Low-maintenance, lightweight (from 145 to 270 kg) and reduced flow rate
- Reduced projections thanks to a low rotational speed
- The bottom part of the discs is totally flat, preventing any stripping of the spurs

### Models for vineyard tractor

SHORT FRAME - 6 to 20 disks  
Cutting intervals - 60 or 90 mm  
Working height selection from 185 to 545 mm

LONG FRAME - 14 to 28 disks  
Cutting intervals - 60 or 90 mm  
Working height selection from 485 to 1175 mm



### The sharp disk for a cutting quality comparable to that of pruning shears

A circular disk with a sharp edge on one of the cutting modules, facing a toothed disk on the other module, ensures a clean sharp cut, without cracking of the wood.  
The cutting effect of the disk avoids pinching the wood, which is a common phenomenon in shear cutting.  
A specific configuration of this equipment ensures the respect of the environment (posts and tying wires).



### Side cuts option

The side cuts are supplied with safety retraction and manual setting of the cutting angles and width. They are serially connected with the pre-pruning head and require no additional flow rate.



### Automatic opening option

The optical detection operates for any type of post (wood, steel, concrete), but there must be no leaves. The posts shall not show any holes in the reading axis and have a cross-section larger than or equal to 25 mm.  
The inductive detection (not shown) only operates with steel posts. But it allows pre-pruning immediately after the harvest, even if there are leaves.

\*The MP 122 pre-pruner and the sharp disk are protected by patents.





Principle:

- Perforated drum, in which a suction nozzle is mounted. At the end of this nozzle, a turbine generates a high depression and sucks the leaves against the rotating drum. The leaves are stripped by a roller and fall on the ground
- Working height 480 mm
- The stripping head is supplied with a parallelogram frame that allows following the vegetation plane. The head rests on two guides on the top and on the bottom of the suction area
- The turbine and the roller are driven by serially connected hydraulic motors. Flow rate per head is 22 l/min
- The LR 350 leaf stripper can be adapted on any carrier type, vineyard tractor, high-clearance tractor and harvesting machine

Advantages:

- The entire leaves stripped do not pass into the turbine and therefore, they are not crushed and sprayed on the neighboring rows
- The parallelogram follows the work plane, ensuring a constant leaf removal without exerting any constraint on the tying or on the grapes
- Simple lightweight machine with reduced dimensions, requiring little maintenance



A'SYST

This assisted follower system allows the LR 350 leaf trimmer to follow the vegetation plane automatically and without operator intervention. It operates hydraulically, without sensor and without electronic board. A'Syst distinguishes itself by its technological choice and ensures:

- a great flexibility of use
- an exceptional efficiency (working speed up to 6 km/h and more)
- respect for the harvest thanks to the specific "C"-shape of its probe, which features a hollow section in its center to avoid rubbing against the grapes



View the video of the A'Syst option on our PROVITIS channel



NOVELTY 2018

Reciprocating cut (option)

Reciprocating cutting bar with on/off function using a 3-way valve.

Turning system (option)

Available with or without 300 mm hydraulic translation

Models for vineyard tractor:

- Half row
- One complete row
- Two half rows





## VINE SHOOT EXTRACTOR VSE 430



### Principle:

- A feeding disk pushes the branches to the side, a transfer chain brings them to wheels, which finish extracting them by the side
- The vine shoot extractor VSE 430 can be adapted on a vineyard tractor or on a high-clearance tractor



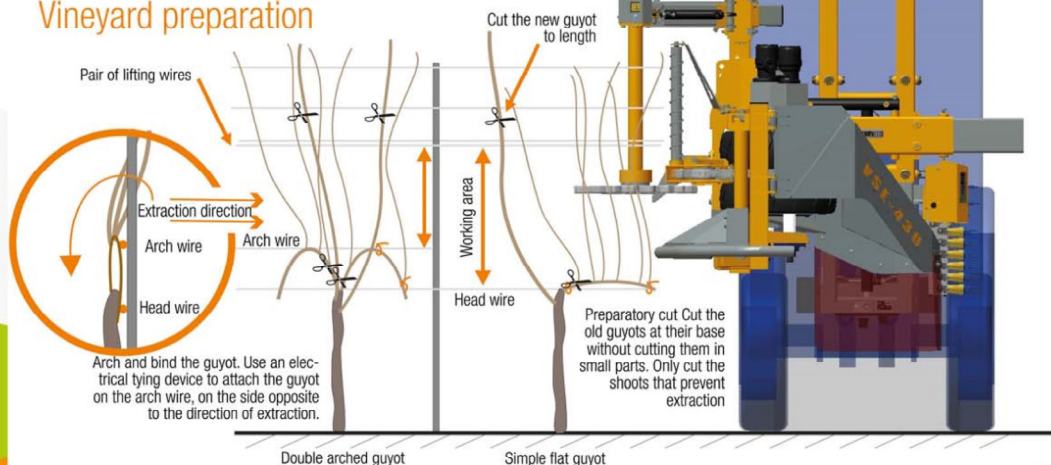
### Advantages:

- The side pulling reproduces the manual process and limits the constraints on the tying wires
- Low maintenance level
- Working speed 2 to 5 km/h
- Weight 350 kg
- Flow rate 25 l/min

### Wire lifter

The VSE 430 can be optionally equipped with a wire lifting device (removable lifting wires, posts with notches allowing the automatic removal of the wire from the top).

### Vineyard preparation



## TRUNK CLEANER SRB 22

## Optima range



### Principle:

- High-clearance frame equipped with two debudding heads. The debudding heads are made of a stack of rings in which special semi-rigid straps are inserted. The heads are driven by 2 serially connected hydraulic motors to perform trunk cleaning
- Adjustable guides
- Adjustment of the distance between each of the heads
- Working speed approximately 3 km/h
- Requires flow rate 5 to 20 l/min



### Advantages:

- Independent side and rear safety retraction
- The special semi-rigid straps provide efficient cleaning without damaging the trunks
- The two lower rings are equipped with 3 straps instead of 2 to increase the beating frequency on the base of the trunk, where most of the branches are located

### Options:

- Hydraulic debudding head spreading
- Hydraulic height adjustment of the external head

Working height selection from 200 to 600 mm





## SMP 30 S

- Single-beam structure in distortion-free box with up/down move cylinder, stroke 700 mm, equipped with a safety valve
- Hydraulic inclination at the base of the carrying frame
- Side tilt  $\pm 20^\circ$ , quick coupling system and plate to weld for front attachment on vineyard tractor

## SMP 30 P

- Single-beam structure in distortion-free box with up/down move cylinder, stroke 700 mm, equipped with a safety valve
- Hydraulic offset 1370 mm with a deformable parallelogram
- Side tilt  $\pm 20^\circ$ , quick coupling system and plate to weld for front attachment on vineyard tractor

## SMP 50

- Two-beam structure with up/down cylinder stroke 700 mm equipped with a safety valve
- Front attachment with quick coupling, bracing rod, tie rods and plate to be welded for front mounting on vineyard tractor
- Possibility to fasten a translation sleeve, a spreading sleeve for trimmers, a spreading sleeve for 2DR (two heads) leaf stripper and a turning system for DR (one head) leaf stripper

## SMP 15

- Single-beam structure with up/down cylinder stroke 800 mm equipped with a safety valve
- Front attachment or attachment between wheels, quick coupling with plate to be welded for vineyard tractor, bracing rod with tie rods
- Possibility to fasten two translation sleeve types with machine gripping from the side or from the top and the turning system



## HYDRAULIC UNIT HPS60

- Flow rate 62 l/min, reserve 110 liters
- 33 cm<sup>3</sup> gear pump with pressure relief valve, intensifier group 3, power 25 HP
- Return filter clogging indicator
- Hydraulic exchanger with temperature holding by electrical switch
- Mounting on 3-point tractor coupling, with cardan joint



## 60 LITER ELECTRO-HYDRAULIC VALVES BLOCK

- Maximum inlet flow rate 60 l/min at 180 bars
- Priority machine flow rate from 9 to 50 l/min, adjustable by potentiometer
- Front side hoses connection with 3/8 quick couplings for multi-purpose use
- Specific fastening console for PROVITIS carrying frames with cover
- Ergonomic control armrest including all functions of the Provitis machines or, on request, with an ergonomic control joystick on a control box (for narrow cabins)

