

FRONT COLLECTOR EQUIPMENT



TRV VERSION (Turbo Vibration)



**DAY BY DAY WE IMPROVE THE WORLD OF COLLECTING
DRIED FRUIT AND OLIVE COLLECTORS**

Agromelca

www.agromelca.com



VM TRV SERIES

THE FRONT COLLECTION EQUIPMENT



The **VM-XT10 TRV** series offers you a high performance product with great versatility and big advantages for harvesting almonds and olives.

These machines are mounted on the tractor's front-end loader arms.

This model is designed to harvest all types of trees (almond and olive trees).

HEAD WITH THREE POINT

- The three-point clamping head is very lightweight.
- Attachment corrected at three points (does not damage branches, trunk or the fruit).
- Continuous circular vibration with the possibility of 30-40% power variation with a very easy operation (5 min.) depending on the type of tree to harvest (almond or olives trees).
- The clamping arms with double anchoring that allow us to attach them to trunks with diameters ranging from 8 to 40 cm (depending on the type of tree to be harvested).
- The outcome of the sum of the vibration type incorporated and the attachment system corrected at three points is that the yield percentages are excellent with no damage.

Optionally, we can mount the generic arms, which will allow us to perfectly vibrate trunks ranging from 15 to 50 cm.

The vibration we will get and the knockdown percentages will also be excellent.



Z10 AND Z20 PARALLEL

HEAD (OPTIONAL)

- Parallel arm closure.
- High maneuverability.
- Double clamping cylinders located at the rear of the head.
- New two-point clamping system.
- Compatible with all Agromelca vibrating equipment models.
- Easy trunk attachment.
- Large clamp opening.
- Adjustable clamp opening, allowing adaptation to all types of trees (large diameter, young trees, etc.).
- Continuous circular vibration with 30-40% power variation, easily operated (5 min.) depending on the type of tree being harvested (almond and olive trees).

MODELS

Z10: Maximum opening of 45cm. Smaller size and designed for medium-young trees.

Z20: Maximum opening of 60 cm. Larger in size and designed to deliver excellent performance on all types of trees. Recommended for trees with a trunk diameter of over 20 cm.

Z10/Z20: Arm with additional motor (optional) for increased vibration. Suitable for all types of trees.



MODIFICATION OF POSITION OF RUBBER BLOCK SUPPORT Z10/z20

To guarantee good contact with the trunk and optimum performance in shaking down the fruit, the position of the block support can be adjusted.



MOVEMENTS OF THE MODELS OF THE VM-XT10 PNA/PGA/DGA SERIES

VM1-XT10 TRV PNA 80 PLUS/ DGA 80 PLUS

This vibration device is principally designed to harvest 1 foot trees very quickly and easily.

The VM1 model also allows us to lift and spread out the telescope to be able to attach in the highest positions.

If necessary, in trees where harvesting is very difficult using the umbrella, it can be released very easily.

Given its light weight, it can be assembled on fruit tractors.



Giro pinza (troncos inclinados).

1 Telescópico (extensible) de 50 cm.

Elevación independiente al paraguas.



VM2-XT10 TRV PGA 100 / DGA 100

The **VM2** model allows us to attach it to single- and double-stemmed trees, to trunks up to 2 m high, and to perform lateral movements of up to 2 m with the harvesting platform on the ground and without moving the tractor from its position.

If necessary, on trees where umbrella harvesting is severely restricted, we can detach it with the utmost ease.



Pincer rotation (sloping trunks).
1 Telescopic (extendable) of 75cm.
Separate lifting from the umbrella.
Side machine rotation (right-left).



MOVEMENT AND VIBRATION CONTROLS

The movements and vibration are carried out comfortably and easily using an electronic box, equipped with joysticks and selectors.

Optionally, an electronic cobra control can be installed.



DISPLAY (SOLO CON IL COMANDO COBRA)

The new display screen features:
 Operation display.
 Automatic movement sequencer.
 Tree counter.
 Hour counter.
 Sensors (PTO RPM + oil temperature).



JOYSTICK BOX FUNCTIONS



SIMULTANEOUS MOVEMENTS



EXTEND UMBRELLA
+ CLOSE Pincer ARMS

OPEN Pincer ARMS
+ PICK UP THE UMBRELLA

How does it work?

Activating the joystick diagonally, the umbrella will extend and the clamp will close automatically.
 If this action is done the opposite direction, the clamp will open and we will folded up the umbrella.

CONTROL UNIT FUNCTIONS



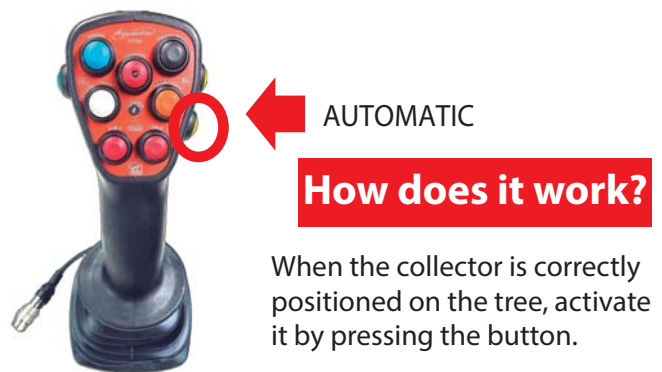
1 SIMULTANEOUS



Pressing the button activate the simultaneous. Pushing the joystick (without pressing any button) the umbrella will extend and the clamp will close automatically.

Move the joystick in the opposite direction to open the clamp and withdraw the umbrella. To deactivate this function press the button again.

2 SEQUENTIAL AUTOMATIC MOVEMENTS (Optional)



The collector performs the following actions automatically:

1. Extend canvas platform.
2. Open pincer arms.
3. Left vibration (if the operator has activated it).
4. Right vibration (if the operator has activated it).
5. Open pincer arms.
6. Retract canvas platform.

TUBULAR ALUMINIUM COLLECTING PLATFORMS

Our VM-XT10 TRV series is equipped with the new tubular aluminium platform with the option of choosing several dimensions.

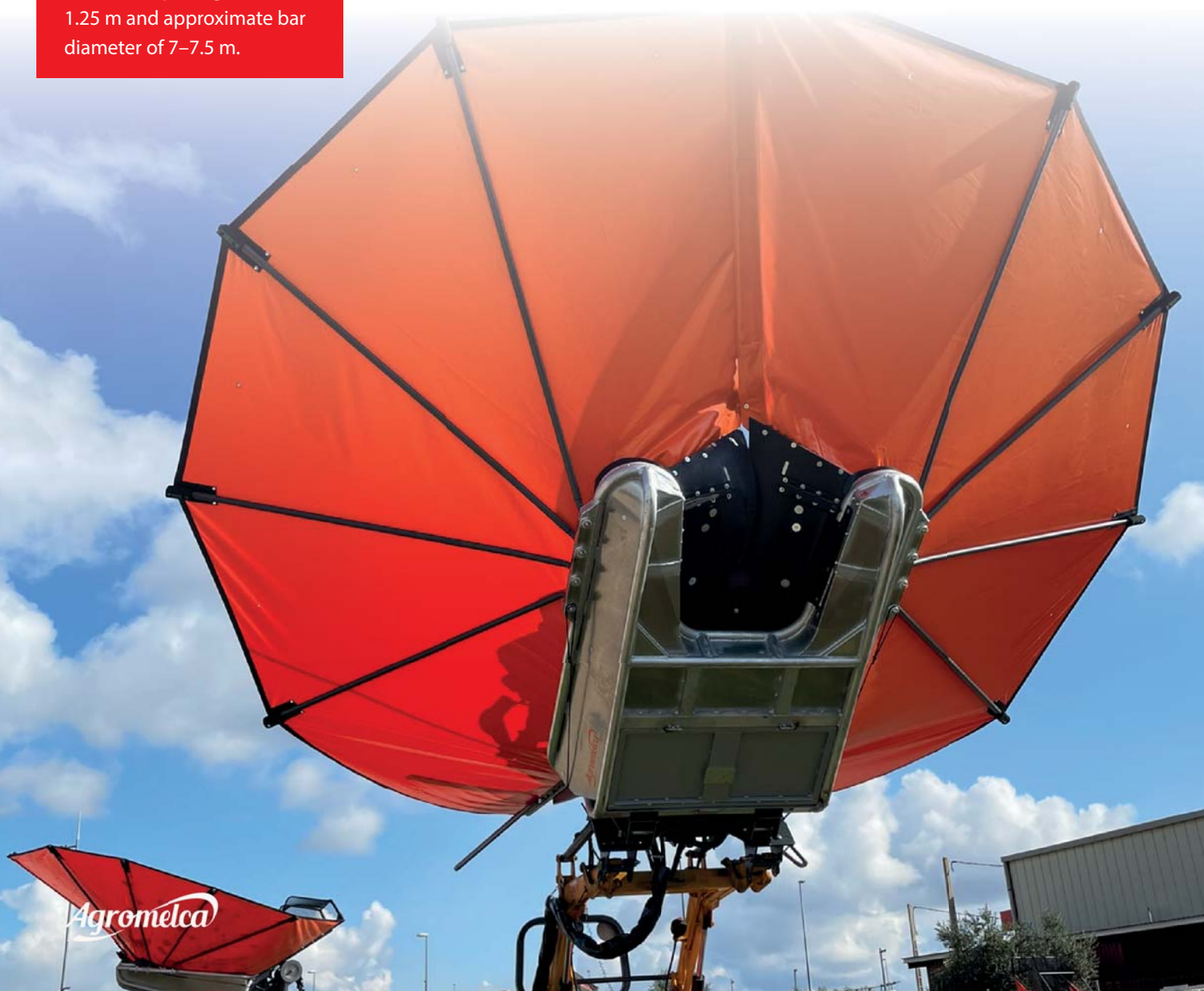
MODELS:

- **PNA 80.** Opening width of 0.80 m and approximate bar diameter of 6–6.5 m.
- **PGA100.** Opening width of 0.80 m and approximate bar diameter of 6–6.5 m.
- **PGA125.** Opening width of 1.25 m and approximate bar diameter of 7–7.5 m.

With this platform we will reduce the weight of a conventional umbrella (iron) and we therefore enormously reduce the wear and breakdowns of the vehicle that withstands the weight and increase the handling of the vehicle, stability, safety, agility of operations and speed in the movements.

Agromelca, S.L. is a pioneer in the manufacture of aluminium platforms (patented).

With this umbrella we have taken a great step forward in the mechanisation of harvesting and we have got rid of the big weight issue.



- Its tubular construction makes entering and leaving the tree operations easier.
- The diameter can be changed on request (ask).
- Quick release of the umbrella from the vibration device if the type of plantation requires this (E.g. Olive trees not adapted to harvesting with umbrellas).
- **OPTIONAL.** Bars with minimum angle (indicated for olive trees).
If necessary, to make manually going over olive picking from the outer perimeter of the umbrella easier, the minimum bar angle can be requested.
- **OPTIONAL.** Bar supplement to increase the diameter.
- **OPTIONAL.** Low bars open (the first two).



TUBULAR IRON PLATFORM MODELS **PNH 80 PLUS,** **PGH 100 AND PGH 125** (OPTIONALS)

Optionally, the **PNH 80 PLUS, PGH 100** or **PGH 125** model platform, with tubular design and iron construction, can be installed on the vibration equipment.



TUBULAR ALUMINIUM COLLECTING PLATFORMS (MIXED)

- Approximate load capacity of the DGA 80 of 150–200 kg (depending on the fruit).
- Load capacity of the DGA 100 of 200–250 kg (depending on the fruit).
- Its tubular construction makes it easier to manoeuvre in and out of the orchard.
- The bar diameter can be modified on request (please enquire).
- It is fitted with two peelers, two augers and two fruit level sensors in the hopper with an audible alarm.
- With the addition of two peelers and two augers, the feeding and cleaning of almonds is carried out very quickly, eliminating waiting times.
- Independent speed control for peelers and augers.
- Easy removal of the peelers (although not necessary), screw conveyors and aluminium sheets from the hopper for later use in harvesting other fruits (olives).
- Separate peeler and fruit sorter speed adjustment.

MODELS:

• **DGA 80 PLUS.** Mouth opening of 0.80 m and approximate bar diameter of 6-6.5 m.

• **DGA100.** Mouth opening of 1.00 m and approximate bar diameter of 7-7.5 m.



- Easy to disassemble peelers (although this is not necessary), fruit sorters and aluminium plates of the tank for subsequent use in the harvesting of other fruits (olives).
- The peeler shaft is easy to extract (to replace rubber seals) only removing three screws.
- Quick release of the DGA umbrella from the vibration device if the type of plantation requires this (E.g. Olive trees not adapted to harvesting with umbrellas).
- **OPTIONAL.** Bars with minimum angle (indicated for olive trees). If necessary, to make manually going over olive picking from the outer perimeter of the umbrella easier, the minimum bar angle can be requested.
- **OPTIONAL.** Bar supplement to increase the diameter.
- **OPTIONAL.** Low bars open (the first two



TUBULAR IRON PLATFORM MODELS **DGH 80 PLUS** AND **DGH 100** (OPTIONALS)

Optionally, the **DGH 80 PLUS** or **DGH 100** platform, featuring a tubular design and made of cast iron, can be fitted to the vibrating equipment.

INCORPORATED HINGE FOR NARROW PLANTATION SPACES (OPTIONAL)

INSTALLATION IN VM1 MODEL

In order to be able to harvest with the umbrella plantations with a very small space, we can incorporate the hinge system.

This joint allows us to rotate the entire collector 45° in one direction, and therefore we can make entering and leaving the tree operations without major complications.

The minimum space for the hinge to be able to work successfully is 5x3.

If we have to harvest trees with the hinge working, the umbrella diameter is recommended not to exceed 5m.

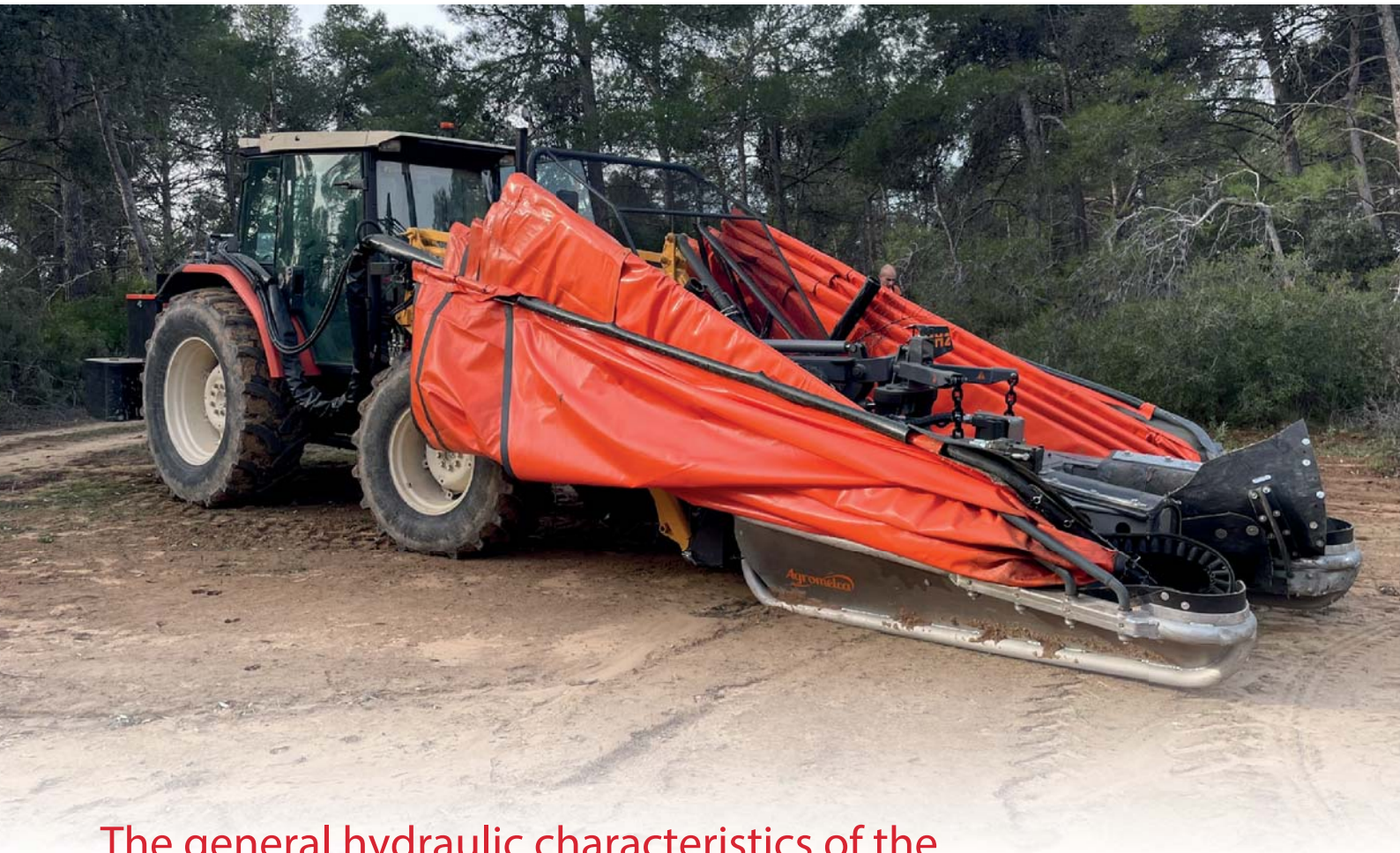


CONFIGURATION OF THE HYDRAULIC SYSTEM

We have always been committed to the reliability of our products, and therefore all the hydraulic components we install in our collectors are from renowned and top quality brands.

To introduce the TRV system, we have designed a totally new electric and hydraulic system, equipped with state-of-the-art and top quality hydraulic components.





The general hydraulic characteristics of the **VM-XT10 TRV PNA/PGA** series are as follows

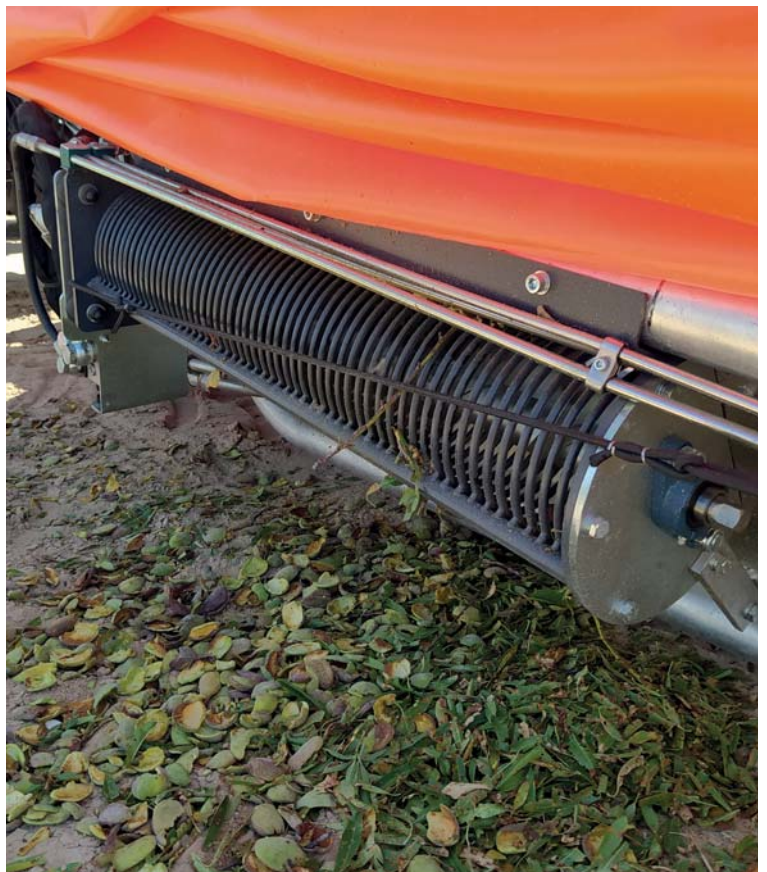
1. We incorporate double vibration in each direction (1 fixed + 1 turbo in each direction).
2. Adjustable vibration brake and self-tightening selectable.
3. Adjustment of the clamping force of arms to the trunk we prevent peeling).
4. Hydraulic system made up of one double pump with multiplier (TDF 540 RPM).





The general hydraulic characteristics of the **VM-XT10 TRV DGA** series are as follows

1. Triple pump with multiplier (540 RPM PTO).
2. Vibration system with turbo (1 vibration in each direction + 1 turbo vibration in each direction).
3. Adjustable vibration brake and selectable auto-tightening.
4. Adjustment of the clamping force of the arms against the trunk (to prevent bark stripping).
5. When vibration is activated, the peelers and augers do not stop.
6. Independent speed control for peelers and augers.
7. Even if the vehicle is accelerated, the selected speed of the peelers and augers remains unchanged.
8. Other features (please consult your dealer).



VM-XT10 TRV PNA/PGA

FEATURES	VM1-XT10 TRV PNA 80	VM2-XT10 TRV PGA 100
Quick attach and release of the umbrella	•	•
Aluminium tubular platform	PNA 80	PGA 100
Trunk capacity (depending on the fruit) ⁽¹⁾	300-400 Kg.	350-450 Kg.
Standard bar diameter	6,5 m	7,5 m
Electronic cobra control + CPU	•	•
Display (Operation display + Automatic movement sequencer + Tree counter + Hour meter + Sensors (PTO RPM + Oil temperature))	optional	optional
Joysticks + selectors box	optional	optional
VIBRATION SYSTEM TURBO (TRV)	1 vibration in each direction + Turbo vibration in each direction	1 vibration in each direction + Turbo vibration in each direction
Continuous circular vibration	•	•
Power reduction counterweight supplement	optional	optional
Power increase counterweight supplement	optional	optional
Adjustment arm tightening, vibration brake + self-tightening	•	•
Rotation in the pincer	•	•
Telescope (extendible)	50 cm	75 cm
Separate lifting from the umbrella	•	•
Machine side rotation	-	•
Oil tank capacity (litres)	200 l	200 l
Hydraulic system	Double pump w/multiplier	Double pump w/multiplier
Tractor power take-off engine revolutions	540 RPM normal	540 RPM normal
Umbrella opening and closing sound alarm	•	•
Young tree arm head (3 point head)	•	•
Generic arm head (3 point head)	optional	optional
Parallel head Z10	optional	optional
Parallel head Z20	optional	optional
Additional motor on the Z10/Z20 parallel head arm + Turbo Vibration 2	optional	optional
Installation of aluminium platform PNA 80	•	-
Installation of iron platform PNH 80 PLUS	optional	-
Installation of iron platform PGH 100	optional	optional
Installation of aluminium platform PGA 100	optional	•
Installation of iron platform PGH 125	-	optional
Bar supplement (0,50 m / 1 m)	optional	optional
Minimum bar angle	optional (free)	optional (free)
45° hinge narrow plantation spaces (diameter 5m) ⁽²⁾	optional	-
Low bars open (the first two)	optional	optional
Anti-caloric super soft rubber components (Z10 and Z20)	optional	optional
Auger kit for the collection platform	optional	optional

Agromelca, S.L. reserves the right to make the modifications it considers necessary to the products in this catalogue without prior notice.

(-) Standard. ⁽¹⁾ Rough guide (depends on the type and characteristics of the fruit).

⁽²⁾ With hinge the bar diameter will be 5 metres.

VM-XT10 TRV DGA (Almond and olive mix)

FEATURES	VM1-XT10 TRV DGA 80 PLUS	VM2-XT10 TRV DGA 100
Quick attach and release of the umbrella	•	•
Aluminium tubular platform	DGA 80 PLUS	DGA 100
Trunk capacity (depending on the fruit) ⁽¹⁾	150-200 Kg.	200-250 Kg.
Standard bar diameter	6,5 m	7,5 m
Electronic cobra control + CPU	•	•
Display (Operation display + Automatic movement sequencer + Tree counter + Hour meter + Sensors (PTO RPM + Oil temperature))	optional	optional
Joysticks + selectors box	optional	optional
VIBRATION SYSTEM TURBO (TRV)	1 vibration in each direction + Turbo vibration in each direction	1 vibration in each direction + Turbo vibration in each direction
Continuous circular vibration	•	•
Power reduction counterweight supplement	•	•
Power increase counterweight supplement	optional	optional
Adjustment arm tightening, vibration brake + self-tightening	•	•
Rotation in the pincer	•	•
Telescope (extendible)	50 cm	75 cm
Separate lifting from the umbrella	•	•
Machine side rotation	-	•
Oil tank capacity (litres)	200 l	200 l
Hydraulic system	Triple pump w/multiplier	Triple pump w/multiplier
Tractor power take-off engine revolutions	540 RPM normal	540 RPM normal
Umbrella opening and closing sound alarm	•	•
Sound alarm of level of fruit load	•	•
Young tree arm head (3 point head)	•	•
Generic arm head (3 point head)	optional	optional
Parallel head Z10	optional	optional
Parallel head Z20	optional	optional
Additional motor on the Z10/Z20 parallel head arm + Turbo Vibration 2	optional	optional
Installation of aluminium platform DGA 100	optional	•
Bar supplement (0,50 m / 1 m)	optional	optional
Minimum bar angle	optional (free)	optional (free)
45° hinge narrow plantation spaces (diameter 5m) ⁽²⁾	optional	-
Low bars open (the first two)	optional	optional
Anti-caloric super soft rubber components (Z10 and Z20)	optional	optional
Two peelers and two fruit sorters	•	•
Stopping of peelers and fruit sorters during the vibration	NO	NO
Oil radiator	•	•
Separate speed adjustment of peelers and fruit sorters without speed variation	•	•
Maintenance of speed of peelers and fruit sorter although we increase the engine's revolutions	•	•
Auger kit for the collection platform	optional	optional

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(-) Standard. ⁽¹⁾ Rough guide (depends on the type and characteristics of the fruit).

⁽²⁾ With hinge the bar diameter will be 5 metres.

VM-XT10 ECO PNH/PGH



VM-XT10 ECO PNH/PGH

FEATURES	VM1-XT10 ECO PNH 80	VM2-XT10 ECO PGH 100
Quick attach and release of the umbrella	•	•
Iron tubular platform	PNH 80	PGH 100
Trunk capacity (depending on the fruit) ⁽¹⁾	300-400 Kg.	350-450 Kg.
Standard bar diameter	6,5 m	7,5 m
Joysticks + selectors box	•	•
Electronic cobra control + CPU	optional	optional
Display (Operation display + Automatic movement sequencer + Tree counter + Hour meter + Sensors (PTO RPM + Oil temperature))	optional (Only with electronic cobra control)	optional (Only with electronic cobra control)
CLASSIC VIBRATION SYSTEM	1 vibration in each direction	1 vibration in each direction
Continuous circular vibration	•	•
Power reduction counterweight supplement	optional	optional
Power increase counterweight supplement	optional	optional
Adjustment arm tightening, vibration brake	•	•
Rotation in the pincer	•	•
Telescope (extendible)	50 cm	75 cm
Separate lifting from the umbrella	•	•
Machine side rotation	-	•
Oil tank capacity (litres)	200 l	200 l
Hydraulic system	Double pump w/multiplier	Double pump w/multiplier
Tractor power take-off engine revolutions	540 RPM normal	540 RPM normal
Umbrella opening and closing sound alarm	•	•
Young tree arm head (3 point head)	•	•
Generic arm head (3 point head)	optional	optional
Parallel head Z10	optional	optional
Parallel head Z20	optional	optional
Additional motor on the Z10/Z20 parallel head arm + Turbo Vibration 2	optional	optional
Installation of iron platform PGH 100	optional	•
Installation of aluminium platform PNA 80 PLUS	optional	NO
Installation of aluminium platform PGA 100	optional	optional
Installation of iron platform PGH 125	NO	optional
Bar supplement (0,50 m / 1 m)	optional	optional
Minimum bar angle	optional (free)	optional (free)
45° hinge narrow plantation spaces (diameter 5m) ⁽²⁾	optional	-
Low bars open (the first two)	optional	optional
Anti-caloric super soft rubber components (Z10 and Z20)	optional	optional
Auger kit for the collection platform	optional	optional

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(+) Standard. ⁽¹⁾ Rough guide (depends on the type and characteristics of the fruit).

⁽²⁾ With hinge the bar diameter will be 5 metres.

VM-XT10 ECO DGH (MIXED)



VM-XT10 ECO DGH (Almond and olive mix)

FEATURES	VM1-XT10 ECO DGH 80 PLUS	VM2-XT10 ECO DGH100
Quick attach and release of the umbrella	•	•
Iron tubular platform	DGH 80 PLUS	DGH 100
Trunk capacity (depending on the fruit) ⁽¹⁾	150-200 Kg.	200-250 Kg.
Standard bar diameter	6,5 m	7,5 m
Joysticks + selectors box	•	•
Electronic cobra control + CPU	optional	optional
Display (Operation display + Automatic movement sequencer + Tree counter + Hour meter + Sensors (PTO RPM + Oil temperature))	optional (Only with electronic cobra control)	optional (Only with electronic cobra control)
CLASSIC VIBRATION SYSTEM	1 vibration in each direction	1 vibration in each direction
Continuous circular vibration	•	•
Power reduction counterweight supplement	•	•
Power increase counterweight supplement	optional	optional
Adjustment arm tightening, vibration brake	•	•
Rotation in the pincer	•	•
Telescope (extendible)	50 cm	75 cm
Separate lifting from the umbrella	•	•
Machine side rotation	-	•
Oil tank capacity (litres)	200 l	200 l
Hydraulic system	Triple pump w/multiplier	Triple pump w/multiplier
Tractor power take-off engine revolutions	540 RPM normal	540 RPM normal
Umbrella opening and closing sound alarm	•	•
Sound alarm of level of fruit load	•	•
Young tree arm head (3 point head)	•	•
Generic arm head (3 point head)	optional	optional
Parallel head Z10	optional	optional
Parallel head Z20	optional	optional
Additional motor on the Z10/Z20 parallel head arm + Turbo Vibration 2	optional	optional
Installation of iron platform DGH 100	optional	•
Installation of aluminium platform DGA 80 PLUS	optional	NO
Installation of aluminium platform DGA 100	optional	optional
Bar supplement (0,50 m / 1 m)	optional	optional
Minimum bar angle	optional (free)	optional (free)
45° hinge narrow plantation spaces (diameter 5m) ⁽²⁾	optional	-
Low bars open (the first two)	optional	optional
Anti-caloric super soft rubber components (Z10 and Z20)	optional	optional
Two peelers and two fruit sorters	•	•
Stopping of peelers and fruit sorters during the vibration	NO	NO
Oil radiator	•	•
Separate speed adjustment of peelers and fruit sorters without speed variation	•	•
Maintenance of speed of peelers and fruit sorter although we increase the engine's revolutions	•	•
Auger kit for the collection platform	optional	optional

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(-) Standard. ⁽¹⁾ Rough guide (depends on the type and characteristics of the fruit).

⁽²⁾ With hinge the bar diameter will be 5 metres.

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