

FRONT COLLECTOR



TRV VERSION (Turbo Vibration)

OLIVES

VM1-XT10 TRV PNA 80
VM1-XT10 TRV PGA 100

OLIVE/ALMOND (MIXED)

VM1-XT10 TRV DGA 80 PLUS
VM1-XT10 TRV DGA 100



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 assembled on the arms of the loader and are conceived and designed to be able to harvest all kinds of trees (almond trees and olive trees).

HEAD WITH THREE POINT CLOSING

- Very light weight.
- 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 trees or olive trees).
- The clamping arms that allow us to attach them to trunks with diameters ranging from 8 to 40 cm (depending on the type of tree to be collected).
- The outcome of the sum of the type of vibration incorporated and the attachment corrected at three points system, is that the yield percentages are excellent without any damage.

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

The vibration we will obtain and the yield percentages will also be excellent.



HEAD WITH PARALLEL CLOSING Z20 AND Z10 (OPTIONAL)

- New two point attachment system.
- It can be assembled on all Agromelca vibration device models.
- Cylinders positioned on the back and therefore they are totally protected.
- Easy attachment to the trunk.
- Wide opening of the pincer.
- Adjustment of the opening of the pincer and therefore we can adapt it to all kinds of trees (with a big diameter, young, etc.).
- 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 trees or olive trees).



MODELS

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

Z20: Maximum opening of 60 cm. Larger size and designed for an excellent performance on all kinds of trees.



NOTE: Head Z20 recommended for trees with a trunk diameter over 20 cm.

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

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.

VM1-XT10 TRV PNA 80/DGA 80 PLUS

- Pincer rotation (sloping trunks).
- 1 Telescopic (extendable) of 50cm.
- Separate lifting from the umbrella.



With the collecting platform on the ground and not moving the tractor from its original location, we can attach to trees measuring one to two feet, attach to trunks of up to 2 m.

In height and make attachments with side movements of up to 2 m. If necessary, for trees where harvesting is very difficult using the umbrella, it can be released very easily.

VM2-XT10 TRV PGA 100/DGA 100

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



MOVEMENT AND VIBRATION CONTROLS

Joystick and selectors



- 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.



Electronic cobra control

JOYSTICK BOX FUNCTIONS



SIMULTANEOUS MOVEMENTS

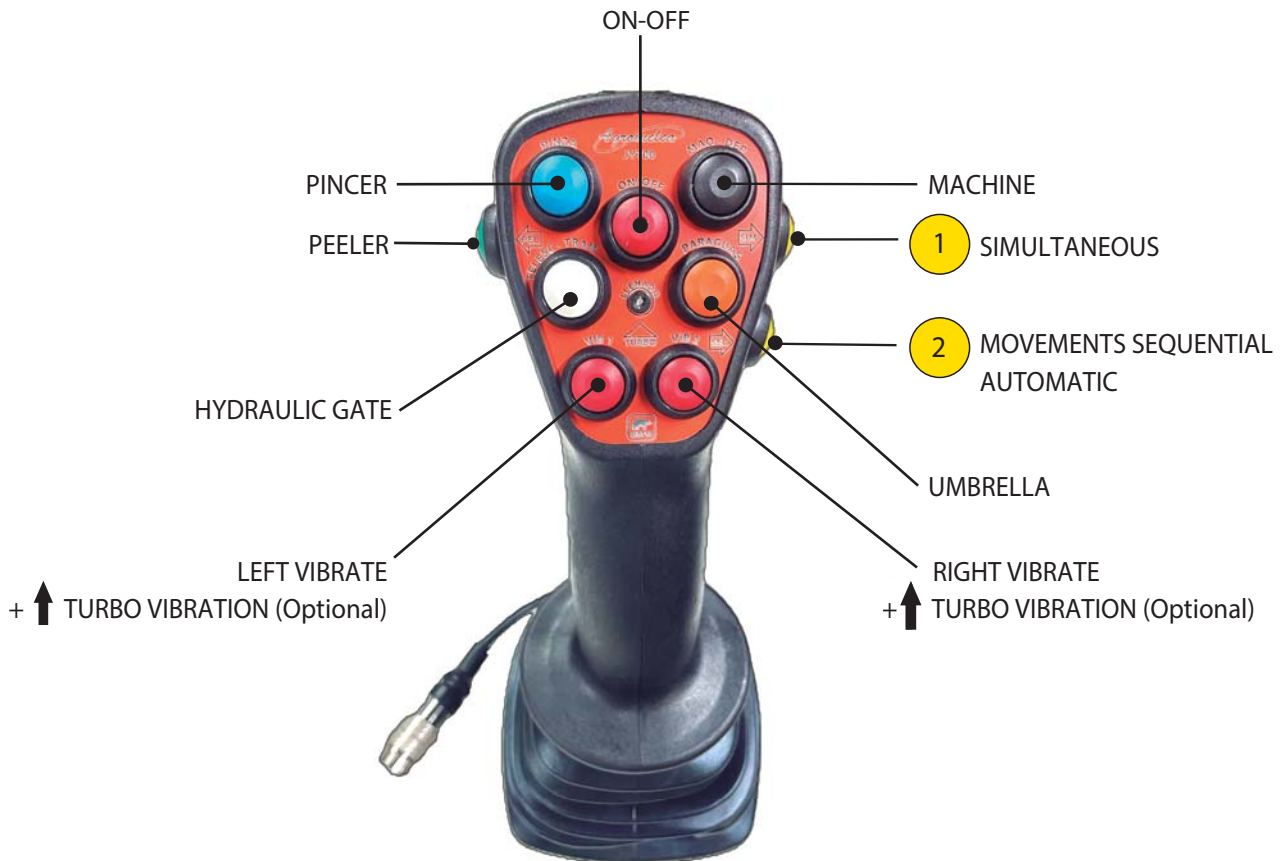
EXTEND UMBRELLA
+ CLOSE PINZER ARMS

OPEN PINZER 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 (OPTIONAL)



OPEN OUT CANVAS
+ CLOSE PINCER ARMS



OPEN PINCER ARMS
+ CLOSE CANVAS

1

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.



**AUTOMATIC SEQUENTIAL
MOVEMENTS (Optional)**

← AUTOMATIC

How does it work?

When we have the collector positioned correctly in the tree, we will activate it by pressing the button.

2

Automatically, the collector will perform the following actions:

1. Extend platform canvas.
2. Close clamp arms.
3. Left vibration (if the operator has activated it).
4. Right vibration (if the operator has activated it).
5. Opening arms clamp.
6. Collect platform canvases.

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.** Mouth measurement of 0.80 m and approximate bar diameter of 6 - 6.5 m.
- **PGA100.** Mouth measurement of 1.00 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 PNH 80 PLUS, PGH 100 & PGH 125 MODELS (OPTIONALS)

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



TUBULAR ALUMINIUM COLLECTING PLATFORMS (MIXED)

- Approximate load capacity DGA 80. 150-200 kg (depending on the fruit).
- Approximate load capacity DGA 100. 200-250 kg (depending on the fruit).
- Its tubular construction makes entering and leaving the tree operations easier.
- The diameter can be changed on request (ask).
- It has two peelers incorporated, two fruit sorters and two tank filling sensors in the tank with sound alarm.
- With the incorporation of two peelers and two fruit sorters, the almonds enter and are cleaned very quickly, eliminating downtimes.
- Separate peeler and fruit sorter speed adjustment.
- 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).



MODELS:

- **DGA 80 PLUS.** Mouth measurement of 0.80 m and approximate bar diameter of 6 - 6.5 m.
- **DGA100.** Mouth measurement of 1.00 m and approximate bar diameter of 7-7,5m.

TUBULAR IRON PLATFORM DGH 80 PLUS & DGH 100 MODELS (OPTIONALS)

Optionally, in the vibration equipment the platform model **DGH 80 PLUS** or **DGH 100** can be installed, with tubular design and iron fabrication.



INCORPORATED HINGE FOR NARROW PLANTATION SPACES (OPTINAL)

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 features of the **VM-XT10 TRV PNA/PGA** are

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 features of the **VM-XT10 TRV DGA** are

1. Triple pump w/multiplier (Power take-off 540 RPM).
2. Vibration with turbo system (1 vibration in each direction + 1 turbo vibration in each direction).
3. Adjustable vibration brake and self-tightening selectable.
4. Adjustment of the clamping force of arms to the trunk).
5. The peelers and fruit sorters do not stop when we vibrate.
6. Separate speed adjustment of peelers and fruit sorters.
7. The peeler and fruit sorter speed we have chosen does not vary even if we accelerate the vehicle.
8. Other features (ask the distributor).



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
Fruit tank capacity	300-400 Kg depending on the fruit ⁽¹⁾	350-450 Kg depending on the fruit ⁽¹⁾
Standard bar diameter	6,5 m	7,5 m
Umbrella opening and closing sound alarm	•	•
Cobra control	optional	optional
Joysticks + selectors box	•	•
Automatic movements sequencer	optional	optional
VIBRATION SYSTEM WITH TURBO (TRV)	1 vibration in each direction + 1 turbo vibration in each direction	1 vibration in each direction + 1 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	2 pump w/multiplier	2 pump w/multiplier
Tractor power take-off engine revolutions	540 RPM normal	540 RPM normal
Head arms young tree (3 point head)	•	•
Generic arm head (3 point head)	optional	optional
Parallel head Z10	optional	optional
Parallel head Z20	optional	optional
Installation platform PNA 80	•	-
Installation iron platform PNH 80 PLUS	optional	-
Installation iron platform PGH 100	optional	optional
Installation platform PGA 100	optional	•
Installation 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 5 m) ⁽²⁾	optional	-
Low bars open (the first two)	optional	optional
Anti-caloric super soft rubber components (Z10 and Z20)	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 meters.

VM-XT10 TRV DGA (Mixed almonds - olives)

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
Fruit tank capacity	150-200 Kg depending on the fruit ⁽¹⁾	200-250 Kg depending on the fruit ⁽¹⁾
Standard bar diameter	6,5 m	7,5 m
Umbrella opening and closing sound alarm	•	•
Cobra control	optional	optional
Joysticks + selectors box	•	•
Automatic movements sequencer	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
Head arms young tree (3 point head)	•	•
Generic arm head (3 point head)	optional	optional
Parallel head Z10	optional	optional
Parallel head Z20	optional	optional
Installation 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 5 m) ⁽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
Sound alarm of level of fruit load	•	•
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	•	•

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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 meters.

PLATFORM MADE OF ALUMINIUM

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