ZP6

6-ROW SELF-PROPELLED

BRUSSELS SPROUTS HARVESTER WITH HOPPER

DEMAN
AGRO

The ZP6 sprout harvester is equipped with six picking elements and harvests six rows of sprouts at once. This self-propelled machine was developed for growers looking for maximum capacity, high efficiency and reliable performance during intensive harvesting days.

Thanks to its high-performance picking technology, spacious cabin and well-considered design, the ZP6 processes large volumes in a fast and controlled manner. A powerful solution for growers who want to harvest more rows in less time, without compromising on picking quality, ease of use or reliability.

DEMAN HARVESTERS,

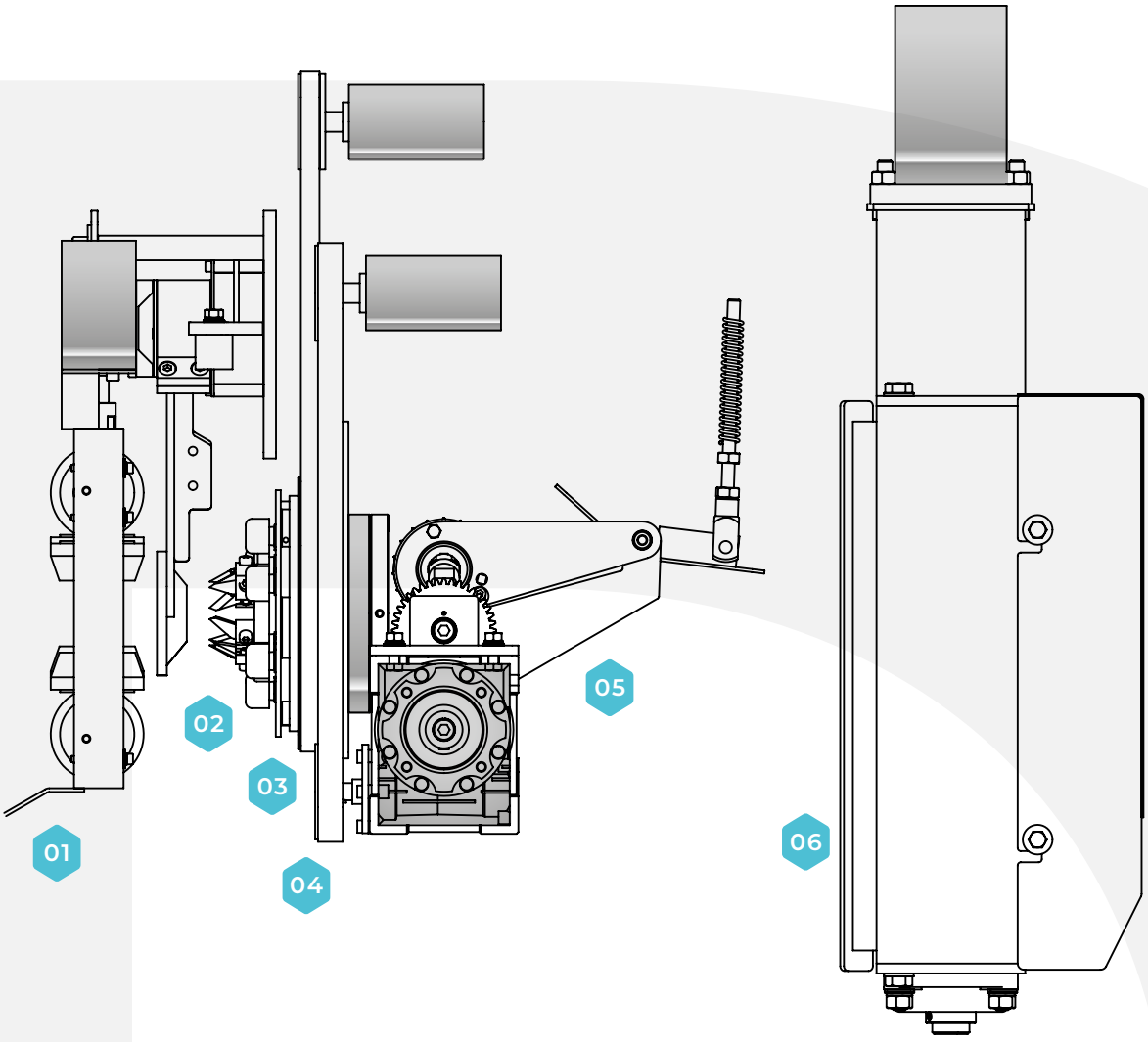
OUTSTANDING PERFORMANCE AND QUALITY YOU CAN RELY ON

A Deman machine owner is defined by dedication and determination. A hard worker. Honest and proud of his profession. Reliable in everything he does.

A vision that perfectly reflects our philosophy and our products. Reliable, high-performance and economical machines that harvest sprouts efficiently and bring a new dimension to the harvesting process.

With the ZP6, Deman takes this one step further: harvesting six rows at once, with a machine built for capacity, stability and efficiency in all conditions.

WE'VE GOT YOUR BACK



A BETTER PICKING RESULT

All components of the Deman picking system are developed and designed in-house with one clear goal in mind: achieving the best picking results in all conditions.

The ZP6 is equipped with six picking elements, allowing the machine to harvest six rows of sprouts at once. This makes the ZP6 particularly suitable for growers who want to increase their harvesting capacity and harvest their sprout crop faster and more efficiently.

Every component has been studied in detail and specifically designed to achieve a reliable result. Standard parts have been carefully selected and are available all over the world.

01. EJECT ROLLERS

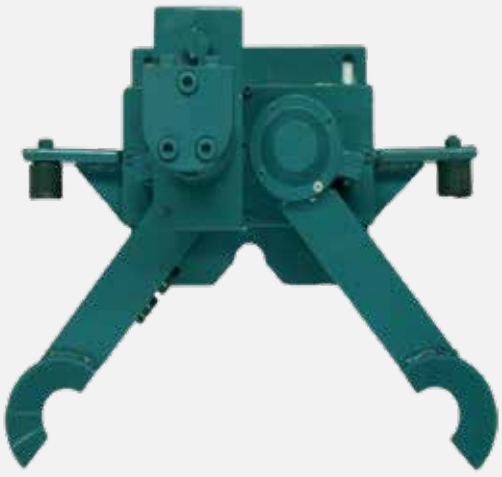
The clipped leaves are removed from the picking unit by the rotating eject rollers. The picking unit is free of leaves at all times, providing a faster harvest when a new plant is brought in.

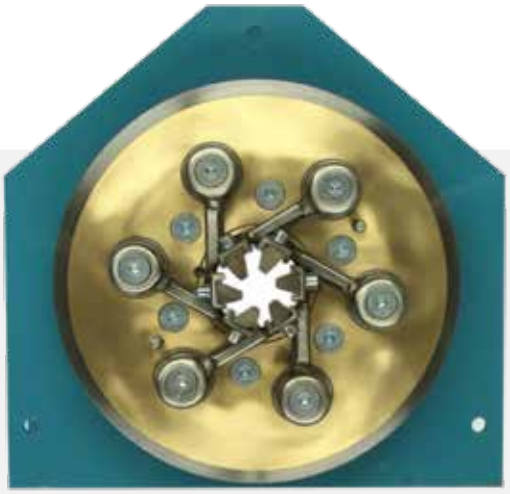
Improved operation

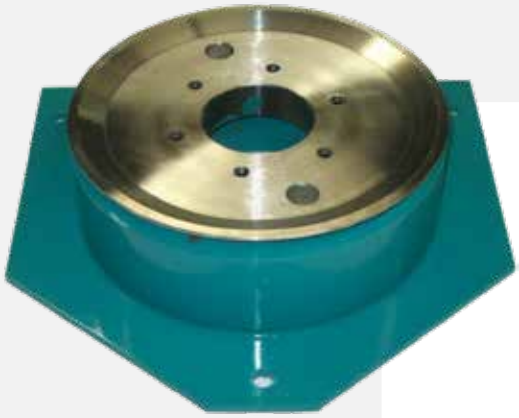
The rollers run at low speed in wait mode. After a predetermined period, the rollers resume to run at full speed. Shock-inducing loads on the casing are kept to a minimum. The frame is made of stainless steel, ensuring food safety.

02. CENTRING MECHANISM

The centring mechanism enables easy and fast picking. Sprouts can be picked quickly as the stem is automatically centred between the blades. A simple and robust construction that is maintenance-free.



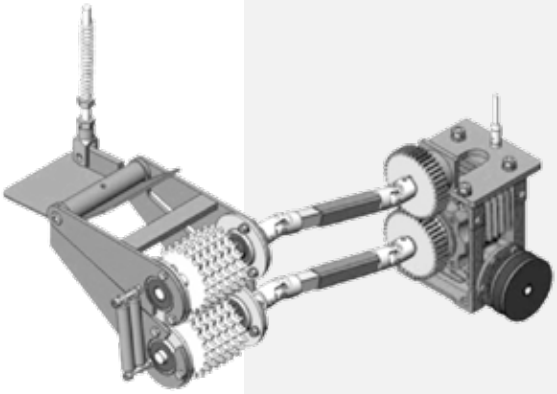




03 & 04. PICKING HEAD AND HEADPLATE
All components are made from exceptional steel and are constructed with the utmost precision on CAD-controlled machines. The blades are made from specialised Cr Mo V-steel and are hardened and sharpened on specialised machines.

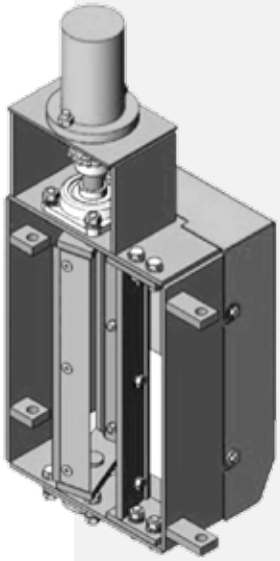
The sprouts are cut with hydraulically controlled picking pressure which can be increased or decreased towards the top of the stem. Various types of cutting blades can be mounted on the picking head.

Two large main bearings ensure a steady picking head. This results in a low-maintenance, long-life picking unit.



05. INTAKE ROLLERS

The intake rollers are mounted on a pivot and are held in position by an adjustable spring.
The two rollers are held with strong springs, ensuring that the stem is firmly centred in the picking head.



06. CHOPPER

A strong and robust chopper cuts the stem into small pieces. The clipped pieces are removed from the machine and remain on the field as natural fertilizer.

07. SAWING UNIT WITH ALIGNMENT SETTING

The sawing units are suspended on a steel cable and can move simultaneously to the left or to the right. In this alignment setting, the distance from the sawing unit to the edge of the cabin is adjustable, in case sprouts have fallen to a particular side.

08. SPACIOUS & BRIGHT CABIN

To make long harvesting days easier to manage, the cabin offers every comfort. Thanks to the bright 220 VAC lighting, you can stay focused on the work and keep productivity at a high level.

In the ZP6, the cabin is equipped for six picking rows. This means more capacity, better visibility and an efficient workstation for intensive harvesting conditions.

09. ELECTRONIC PICKING SETTINGS

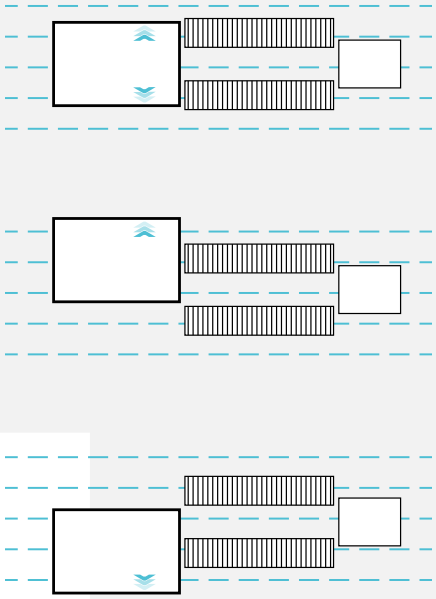
The PLC provides comprehensive settings that can be monitored on an LCD screen, providing accurate data that can be retrieved at any time. Closing the knives, opening the centring mechanisms, turning the ejector rollers and starting the second picking pressure can be fine-tuned. Subtle adjustments result in rapid harvesting. The machine determines where and how the sprouts are cut, ensuring a clean and efficient harvest.

The ZP6 is designed for fast, efficient and controlled sprout harvesting. With six picking elements, the machine combines high capacity with Deman's trusted picking quality.

The self-propelled tracked undercarriage ensures grip and stability in the field, while the wide picking cabin is designed to process six rows at once. This significantly increases harvesting capacity, without compromising on accuracy.

10. CABIN WITH SIDE SHIFT

The cabin is mounted on four large steel wheels with plain bearings. This allows the machine to drive very close alongside the sprout plants. Damage to the sprouts and mud build-up are kept to a minimum. Deman has reinvented the side-shift principle and made it extremely compact.

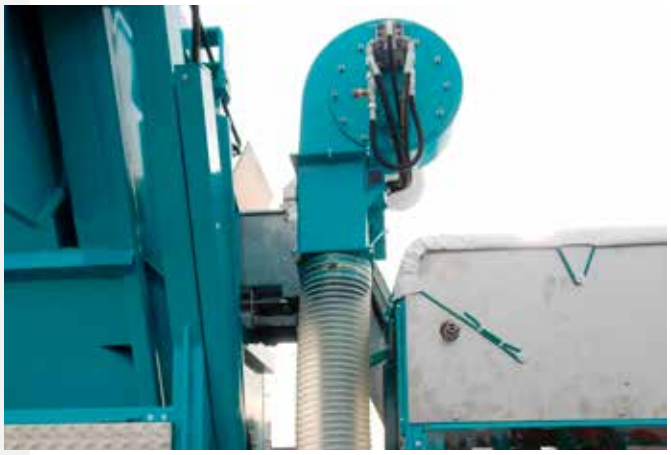


11. USE OF SIEVES

A sieve is installed on the first conveyor to remove the small leaves from the sprouts.
A simple and effective solution that processes the sprouts in a gentle manner.

12. TWIN TURBINE TECHNOLOGY

Two turbines remove all of the clipped leaves before the sprouts are transported to the bunker. The compact and effective design guarantees efficient suction power. The first and largest turbine sucks out the leaves from the first conveyor.
The second smaller fan removes the remaining leaves. The leaves are blown towards the ground, ensuring that the products are not contaminated with the juice of the pulverised leaves.



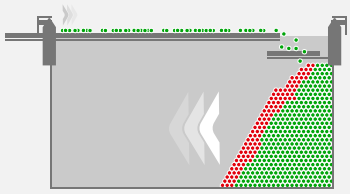
13. USE OF TWIN SIEVE WEBS

A system of sieve webs with twin rods is utilized to guarantee the swift removal of small leaves. The twin rods consist of two rods secured at the end by a tube. A gap as small as 12 mm is created by using rod coverings. The actual pitch is half of the belt pitch. This system allows us to discard all the small leaves and sprouts in a gentle manner. Combined with the twin turbine technology, this allows for maximum removal of small leaves and ensures optimal efficiency.

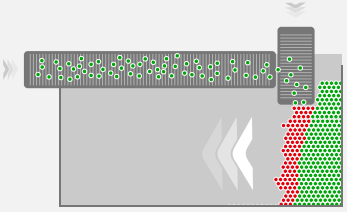
14. THE NEW UNLOADING BUNKER

The sprouts are transported by the longitudinal conveyor belt and are gently deposited onto the transversal conveyor belt. When the machine starts up with an empty bunker, the transversal conveyor belt is located at the back of the bunker. It remains in place until the bunker is filled to the top. This is measured electronically. When the bunker is full, the transversal conveyor belt moves towards the cabin of the machine, resulting in a continuous filling of the machine by gently dropping the products.

The drop height is reduced, preserving the quality of the sprouts. A major advantage of this method is the weight distribution of the machine. In very wet conditions, the machine does not dig itself into the mud. The bunker is unloaded by two electronically controlled conveyor belts that can be activated independently.



Start-up of the machine with an empty bunker. The bunker will continue to fill up until the top is reached.



Transversal conveyor belt steadily moves towards the cabin of the machine when the harvested sprouts reach the top of the bunker.


DEMAN
DEMAN

15. THE ZP6 IS TRANSPORTED IN TWO PARTS

Because the cabin with six picking rows is wider than 3.50 metres, the ZP6 is too wide to be transported on public roads in one piece. That is why the machine is transported in two parts.

The picking cabin is dismantled and placed on a separate transport trolley. This transport trolley is equipped with a hydraulic turntable and is pulled by a tractor. The tracked undercarriage is transported on a low-loader.

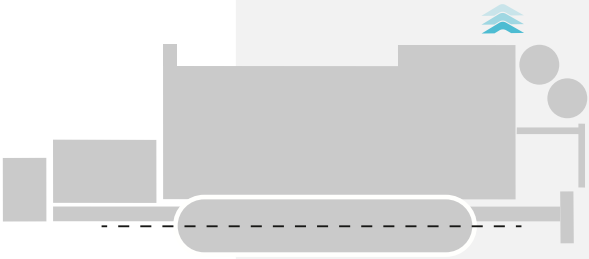
Thanks to wireless controls and electro-hydraulic quick couplings, connecting and disconnecting is exceptionally fast. Within 10 minutes, the machine can be connected and ready for use in the field again.

Robust connectors link the hydraulics and electrical signals in a simple and reliable way. Using radio control, the cabin can be smoothly placed on and removed from the transport trolley.

Benefits:

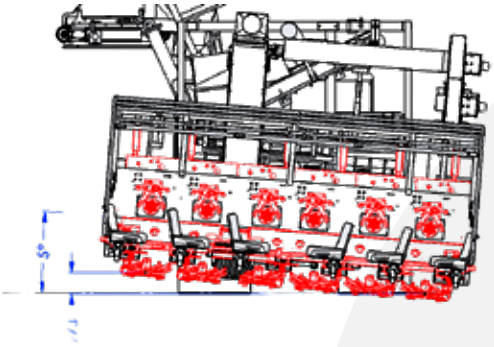
- **transport in two parts**
- **picking cabin on transport trolley with hydraulic turntable**
- **tracked undercarriage transported on a low-loader**
- **fast connection within 10 minutes**
- **electro-hydraulic quick couplings**
- **robust connectors for hydraulics and electrical signals**
- **wireless operation via radio control**
- **easy and fast connection and disconnection of the picking cabin**

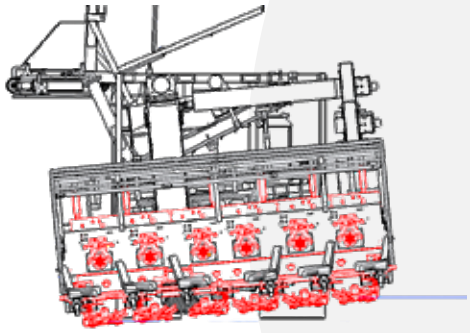
Conventional design



Mast design


DEMAN





16. PENDULANT CABIN

In very wet conditions, one side of the machine can sink deeper into the ground. When one track of the undercarriage sinks, the entire machine tilts. This can affect the position of the sawing systems in relation to the field.

That is why the cabin of the ZP6 is mounted as a pendulant cabin. This keeps the cabin horizontal in relation to the ground, ensuring that all sawing systems continue to work at the same height.

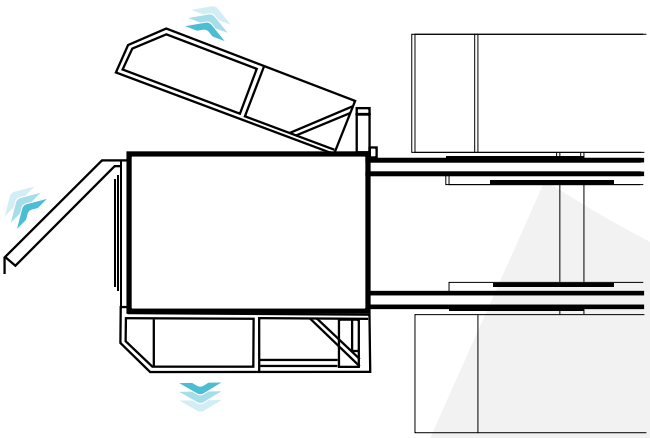
The pendulant cabin compensates for the machine sinking into the ground and keeps the sawing blades perfectly flat in changing field conditions. A difference of approximately 5° to the left and 5° to the right can be compensated.

Benefits:

- **pendulant cabin for greater stability**
- **sawing systems remain evenly positioned above the field**
- **compensation when one track sinks into wet soil**
- **compensation of approximately 5° to the left and right**
- **constant working height of the sawing blades**
- **perfectly flat sawing position in all conditions**

17. MAXIMUM ACCESSIBILITY

The engine and hydraulic compartment are designed for maximum accessibility, providing easy access when engine maintenance is required.



18. TELEMATICS

The Deman telematics system, linked to the sprout pickers' PLC, collects data and stores it in the cloud.

This data can be consulted via Capture, a convenient and user-friendly framework that you can log into online.

This way, users can remotely check the various parameters and performance of their machine.

This has many advantages. For instance, as a user you can select a period during which you get information on:

- where the machine has driven
- how much was harvested
- what the fuel consumption was
- when the machine has been stationary and for how long

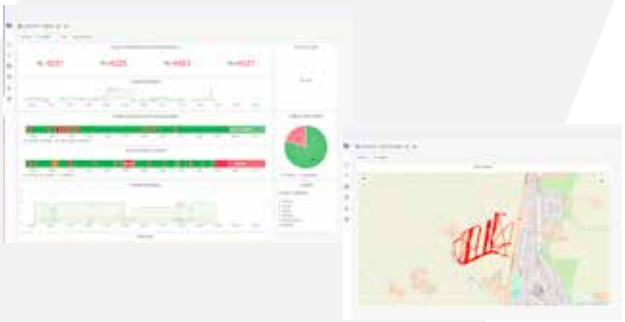
Contacting workers or going on site is no longer necessary, as actual data can also be checked in real time.

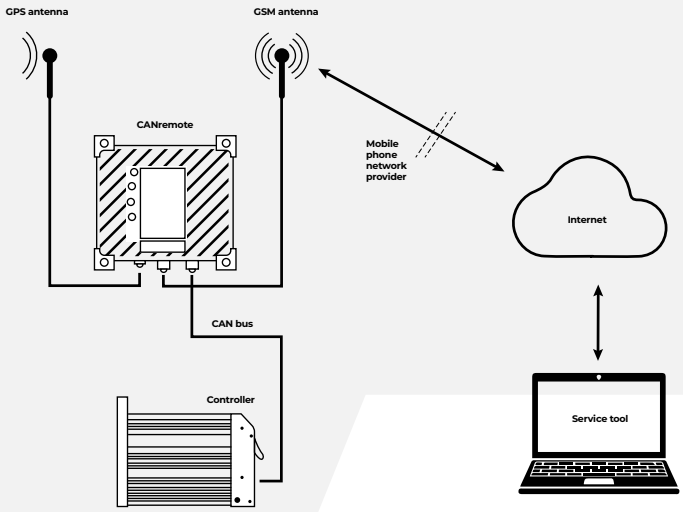
Among other things, you can check:

- the machine's location (via Google Maps)
- what the machine is currently doing
- at what speed the diesel engine is running
- how full the bunker is
- what the current fuel consumption is
- how much diesel is available

An additional advantage is that we can check the various sensors remotely, so any malfunctions can quickly be detected and remedied.

This way, if a problem should occur in the field, a diagnosis is quickly made and any necessary action can be taken swiftly.





STANDARD CONFIGURATION
Leaf rollers
Centring mechanism
Storage space for personal belongings
Radio with Bluetooth
Digital dashboard
Centralised HMI for operation and visualisation
S30-30 undercarriage
57 track shoes for a 900 mm undercarriage width (= 4 m long bunker)
Bosch Hydromatic – Transmetal Bonfiglioli – Berco tracks/chains
3-channel camera
FPT N45 STAGE V diesel engine, 125 kW at 2,200 rpm
Cabin heating 5DL Airtronic
Length with cab installed: 9,700 mm (4 m bunker)
Width: 3,450 mm (undercarriage) / 4,757 mm (cab)
Height: 3,420 mm
Empty weight: approximately 21,000 kg (46,700 lb)
Bunker capacity: 17 m^3 (3.5 m long) or 19 m^3 (4 m long)
Row spacing between Brussels sprouts: 700 mm (27.6”) – 750 mm (29.5”)
Fuel tank capacity: 950 L
Twin Turbine Technology
Centralised greasing system controlled by HMI

OPTIONS
Unloading belt on bunker
Undercarriage with oil-lubricated chains instead of greased chains
24VDC fuel pump for fuel transfer
Rainwater protection for the bunker
Cushioning mats in the bunker to minimize impact damage
24 VDC fans in the bunker

ZP6 IN BRIEF

- Harvesting six rows at once: High capacity for fast and efficient sprout harvesting.
- Transport in two parts: The cabin is transported separately on a transport trolley, the tracked undercarriage on a low-loader.
- Ready within 10 minutes: Thanks to radio control, robust connectors and electro-hydraulic quick couplings.
- Pendulant cabin: Keeps the sawing blades flat, even when one side of the machine sinks into the ground.
- Built for heavy-duty conditions: Stable, powerful and designed for reliable performance in the field.

DEMAN

+32 (0)51 777 368
's Graventafelstraat 27
8980 Passendale

info@nvdeman.be
WWW.NVDEMAN.BE