STRUCTURAL BELT PLANTERS

Soil cultivation | Planting | Harvesting | Storage | Grading

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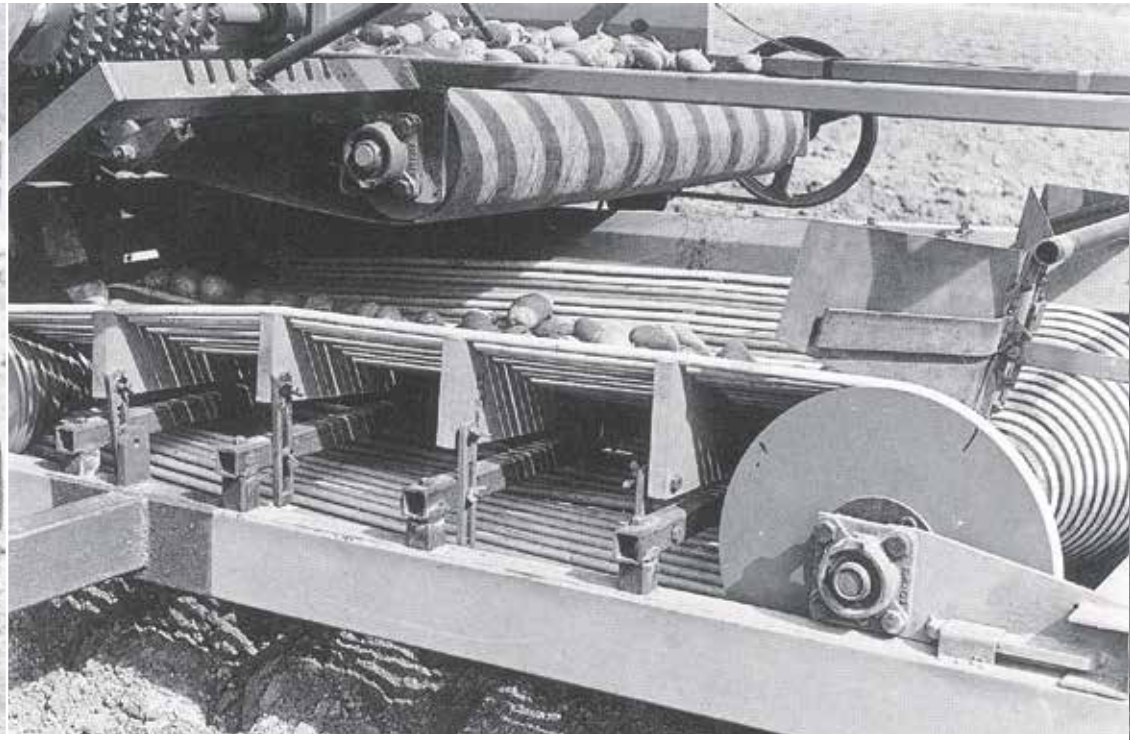
THE FASTEST PLANTER

The Structural is without a doubt the fastest yet also the most reliable potato planter on the market. The Structural is suitable for place-specific planting of a wide variety of seed potatoes. Its innovative technology automatically determines the best planting distance between two potatoes, depending on their size. This gives each individual tuber the ideal room to grow. The result is optimum stem distribution, a more homogeneous end product and a higher net yield. Pre-germinated potatoes are also no problem for the Structural, thanks to the sprout-friendly belt bed.



PURE CRAFTSMANSHIP

Homogeneous stem distribution per square metre has proved to be a good parameter for the growing objective. Increasing mechanisation and crop growing knowledge in the 1970s, along with innovative drive, are the forces behind this revolutionary machine. The planting belt concept has since been copied by many others, but our authentic ‘Structural’ technique has never been equalled. Even today, throughout the world, the Structural series is still the undisputed king of planting belt machines. Besides its striking accuracy, planting can also be done exceptionally quickly, at speeds of up to 11 km/h. In combination with a large bunker the Structural guarantees maximum capacity. Thanks to its broad deployability, this planter is your most economical solution during the planting season.

ULTIMATE EASE OF USE

The Structural is a very accessible and open machine, which gives the driver an excellent view of the planting process from the cabin. Thanks to its simple operation it is also very pleasurable to work with this potato planter.

MOUNTED MS 2000

The mounted MS 2000 is a light, compact machine. The combination is very short and agile, making short headlands no problem. This belt planter is perfectly suited for planting in beds, even on sloping plots, thanks to the Hill-Master option.

TECHNICAL SPECIFICATION	
Version	Lifted
Number of rows	2
Row spacing	75 to 91.4 cm (36”)
Hopper capacity	1400 kg
Weight empty machine	1500 kg
Drive	Hydraulic
Agitators	Hydraulic
Minimum lifting capacity	6500 kg

TRAILED MS 2000

The MS 2000 is also available in a trailed variant, which meets the needs of growers who demand a large bunker capacity. Because the belt planter rides on its own wheels, it requires less power from the tractor and guarantees minimal ground pressure. Moreover, the planter is also available in a ‘Farmer’ variant, a simple, mechanically driven machine with the same qualities as all the other Structural belt planters.

TECHNICAL SPECIFICATION	
Version	Trailed
Number of rows	2
Row spacing	75 to 91.4 cm (36”)
Hopper capacity	3000 kg
Weight empty machine	2700 kg
Drive	Mechanical or hydraulic
Agitators	Mechanical or hydraulic
Minimum tractor power	from 70 hp

MOUNTED STRUCTURAL 30

The mounted Structural 30, which plants three rows in a bed as standard, is the very first of its kind on the market. A unique aspect of the mounted planter is its automatic depth control via an ultrasonic sensor, which is insusceptible to track formation and is infinitely adjustable via the control terminal in the tractor cabin. The mounted variant is also exceptionally manoeuvrable, making it ideal for planting fields with smaller headlands. In addition, it is possible to easily switch between planting two and three rows.

TECHNICAL SPECIFICATION	
Version	Lifted
Number of rows	3
Row spacing	4 - 100 cm
Hopper capacity	1500 kg
Weight empty machine	2650 kg
Drive	Hydraulic
Agitators	Hydraulic
Minimum lifting capacity	7500 kg

TRAILED STRUCTURAL 30

The Structural 30 is a trailed 3-row belt planter that plants three rows in a bed as standard. The innovative technology built into this machine helps prevent potatoes from rolling on the belt bed and guarantees a high level of potato-friendliness. The machine is very manoeuvrable thanks to its small turning circle. In addition, it is possible to easily switch between planting two and three rows.

TECHNICAL SPECIFICATION	
Version	Trailed
Number of rows	3
Row spacing	4-100 cm
Hopper capacity	3500 kg
Weight empty machine	3300 kg
Drive	Hydraulic
Agitators	Hydraulic
Minimum tractor power	from 80 hp

MOUNTED MS 4000

Our mounted MS 4000 is suitable for small to large parcels with short headlands. This is thanks to its compact design, which makes the planting combination very manoeuvrable so the parcel is optimally utilised. The large three tonne bunker capacity provides high planting capacity. The construction of the machine makes it possible to have a ridging hood below the machine.

TECHNICAL SPECIFICATION	
Version	Lifted
Number of rows	4
Row spacing	75 cm
Hopper capacity	3000 kg
Weight empty machine	2950 kg
Drive	Hydraulic
Agitators	Hydraulic
Minimum lifting capacity	9500 kg

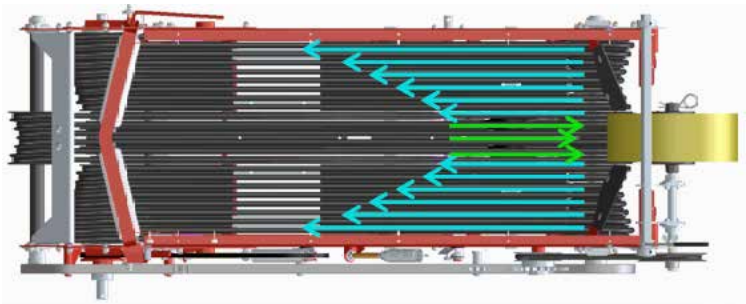
TRAILED MS 4000

Potato growers with the highest planting capacity requirements choose our trailed MS 4000. This machine features a large four tonne bunker or, with the addition of a box tippler, room for two boxes. A large variety of options, such as radial tyres and an offset drawbar for cultivation on beds, make this modularly constructed machine suitable for every grower.

TECHNICAL SPECIFICATION	
Version	Trailed
Number of rows	4
Row spacing	75 to 91.4 cm (36”)
Hopper capacity	4000 kg
Weight empty machine	4000 kg
Drive	Hydraulic
Agitators	Hydraulic
Minimum tractor power	from 120 hp

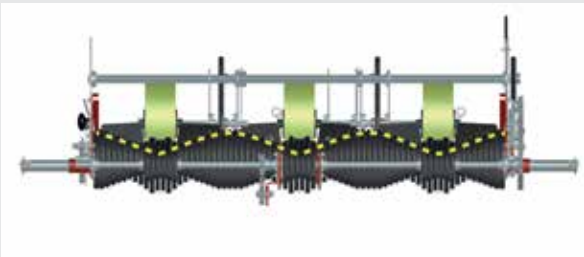
THE HEART OF THE BELT PLANTING SYSTEM

Extreme precision placement in combination with high driving speed... The Structural belt planting system combines precision with a high level of product-friendliness. The unique planting system limits friction between the tubers and therefore prevents damage to the seed potato. A supply conveyor brings the seed potatoes onto the wide belt bed with planting belts and returning belts. For each row, six planting belts bring the potatoes to the foam rubber roller. The vibrating chute below the planting belts takes care of the singling, and the excess potatoes are taken back to the (moving) rear board by the returning belts. The belt bed is specially shaped so that each returning belt runs a little faster than the one next to it, which is beneficial in terms of both product-friendliness and filling of the belt bed. On the last stretch of the planting belts the potatoes are slowed down by the slightly slower running foam rubber roller. This speed reduction has a slight damming effect that presses the potatoes tightly against one another. The position of the foam rubber roller allows the potatoes to fall vertically into the furrow. The open design of the belt bed does an excellent job of separating foreign matter from the seed potatoes and makes it easier to perform maintenance and adjustment of the machine.



WAVE BELT STRUCTURAL 30

The Structural 30 is equipped with the patented ‘Wave Belt’ concept. The wave-shaped planting belts prevent the seed potatoes from rolling to one side on sloping terrain. This innovation is seed potato-friendly, ensures proper placement and guarantees high capacity.



REAR BOARD CONTROL

Varying pressure of the seed potatoes against the movable rear board switches the supply belt on and off for the individual rows. The filling factor of the belt bed can be adjusted with a counterweight.

PLANTING BELT GUIDE ADJUSTMENT

The V-shape of the middle six planting belts is adjustable to accommodate the average size of the seed potatoes. This ensures a good supply to the foam rubber roller.

FOAM RUBBER ROLLER

The foam rubber roller is responsible for achieving the optimum planting distance. It turns slightly slower than the planting belts, which causes damming of the potatoes on the planting belts and ensures that all the tubers are pressed tightly against one another. Longer potatoes are held slightly longer, which results in ideal growing space for each potato and optimum stem distribution.

PRECISION-PLANTING

The unique V-shaped furrow opener is equipped with a small chisel that makes a sharp furrow. The loose soil created at the bottom prevents the seed potato from rolling. The shape of the furrow opener also crumbles a small amount of loose soil on top, which clamps the tuber in the furrow. The result is precision placement of the tuber and an optimum start of the growing process for the potato plant. The specially shaped furrow opener prevents roll-up, is easy to pull and produces a good flow of soil around the tuber. The planting depth can be set easily by means of the large depth control discs mounted on the opener beam, on which the furrow openers are also mounted. The parallelogram suspension is responsible for the constant planting depth, even across the width of the machine. This is how the Structural plants the seed potatoes in a straight line at a constant planting depth. This is Precision-Planting!

ULTIMATE EASE OF USE

Ease of use is the starting point during development of all our belt planters. Thanks to our HMI (Human Machine Interface) working with the hydraulically driven planters is exceptionally pleasurable. The control system supports the driver and takes over many of the tasks. Furthermore, all the planting statistics are displayed on the well-organised screen of the HMI operator terminal. It is simple to connect a GPS signal from your tractor or stand-alone system to our control system, which gives access to the unique GPS Planting-Comfort or GPS Planting-Control option. You can easily set your planting parcel from the cabin. In combination with the Row-Stop option the spray tracks and headlands can be entered automatically. This enables you to respond effectively to changing circumstances and efficiently adapt the planting settings to any situation.

NEW OPERATOR TERMINAL STRUCTURAL 30

The new generation Structural also comes with a new operator terminal, which features a full colour display with touchscreen. Just as with the familiar HMI operator terminal, it is possible to link several different planting parameters to configurable preselections. A joystick is also available as an option and can be used to control the most often-used functions.

JOYSTICK

Connection of an optional joystick with five programmable functions to the control system is as easy as can be.

OPTIONS

SPRAY SET AND/OR FERTI-FLOW

Various options, such as a spray set and/or Ferti-Flow, allow you to equip your trailed belt planter for specific crops. The Ferti-Flow makes use of large stainless steel tanks with an enormous volume of up to 2200 litres (4-row machine) and provide a large capacity. The fertiliser dispensing rate per hectare is infinitely adjustable. The granulate flows between large discs located 5 cm to the right and left of the seed potato, so the granulate does not come into contact with the tuber. The belt metering system leaves the granulate intact and is unaffected by clods, moisture and stones.

SPRAY SET AND/OR GRANULATE APPLICATOR

The automatic application of granulate is driving-speed dependent, resulting in consistent application. Having other options switch on and off at the same time can be set via the operator terminal, and the user has options ranging from manual control of plant protection product application to leaving everything to the system to perform automatically.

EROSION-STOP

Erosion can be a big problem when growing crops in ridges on hilly parcels. The water has difficulty penetrating the soil and is likely to run off. This is detrimental to the top soil, nutrients and phyto-products. To prevent this, Dewulf developed the patented Erosion-Stop. This hydraulically driven machine forms barriers in the soil between the ridges. By adjusting the frequency and shovel depth, it is possible to control the number of barriers and their height. (This option is not possible on the mounted MS 2000 and Structural 30).

GPS PLANTING-COMFORT / PLANTING -CONTROL

For the farmer who places the very highest requirements on ease of use, efficiency and precision, Dewulf has developed the GPS Planting-Comfort and GPS Planting-Control options. This easy-to-operate system automates many tasks.

GPS Planting-Comfort is extremely efficient for fields with gussets and corners. The GPS coordinates of your field are collected by driving around your parcel just one time, entering A-B lines or loading Shape files. Based on these GPS data our software controls all rows, individually or simultaneously, switching them on and off as the planter crosses into or out of the inner field. The system also automatically creates spray tracks, making this effortless as well. The result? Ease of use, efficiency, straight headland lines and no costly waste of (expensive) seed potatoes.

Variable, mechanised application of plant protection products and fertiliser is handled efficiently by GPS Planting-Control. Moreover, you can perform place-specific planting, granulate spreading and fertilising, all independently of each other.

OPTIONS

BOX TIPPLER

The fixed 1.7 tonne bunker in combination with a hydraulic box tippler with room for two boxes results in optimised logistics and flexible deployment of the machine. Two rubber flaps prevent spilling on the sides when boxes are tipped. (option only possible on the trailed MS 4000)

ROW-STOP

The Row-Stop offers the possibility to create spray tracks. This system interrupts the supply of potatoes to the foam rubber roller. Its clever design prevents crushing of the potatoes. Optionally, the Row-Stop can also be operated electrically from the operator terminal.

4 WHEELS

Would you like to spread the weight of your planter over more wheels? Then your belt planter can be fitted with four wheels rather than two. (option only possible on the trailed MS 4000)

TIPPING AUTOMAT

The tipping automat ensures that the supply belts are always supplied with a sufficient quantity of seed potatoes. Automatic tipping makes working with the Structural planter extremely pleasurable.

FILL-CONTROL

A US sensor detects the quantity of potatoes in front of the rear board. The quantity can be set via the operator terminal. This option provides a significant advantage when it comes to controlling the correct quantity of seed potatoes, such as when changing seed potato size, in hilly areas and/or when working with cut seed potatoes.

HILL-MASTER

When you grow in hilly terrain, Hill-Master is the solution for keeping the belt bed filled optimally. The automatic hydraulic adjustment keeps the planting unit level lengthwise when planting on hills.

OPTIONS

INCLINO MASTER® (TRAILED STRUCTURAL 30)

When planting with the trailed Structural 30, uneven terrain is no longer a concern. Thanks to the patented Inclino Master® technology, the planting unit and the bunker are always kept horizontal. The furrow opener then smoothly follows the contours of the bed. This allows the driver to concentrate fully on the planting, without having to worry about rolling potatoes.

CAGE ROLLERS

The cage rollers are mainly suitable for ridge forming in lighter soils. Considerable advantages here are the loose soil and the open structure of the ridge. Moreover, water, nutrients and heat can more easily penetrate the ridge. These can be additionally equipped with ridge erasers. (option only possible on the trailed MS 2000 and trailed MS 4000)

RIDGING HOOD WITH MR-CONTROL

A uniform ridge has better moisture retention and maintains its shape better throughout the growing season. Furthermore, ridging straight away means the tuber is planted exactly in the middle of the definitive ridge. Ridges of the very highest quality are achieved through use of MR-Control. Sensors continuously measure the quantity of loose soil in the ridging hood (rather than pressure in the hydraulic cylinders), after which the position of the ridging hood is automatically adjusted.

PORTAL DRAWBAR

When you want to perform soil cultivation and planting in one working pass, a portal drawbar is available to reach over the cultivator. The planter can be connected to either the tractor or, in the field, to the cultivator itself.

SWIVEL DRAWBAR

A swivel drawbar makes it easier to turn in short headlands, so the planter can be quickly placed in the new working pass. This can also be done in combination with GPS. With a three-point frame with side-shift, the machine is then also suitable for cultivation on beds. (option only possible on the trailed MS 4000)

BUNKER WIDENING SET

If you fill the bunker of your planter via boxes, you can choose a bunker widening set. This guarantees no loss of potatoes when filling the bunker.

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