



MultiForce Multifunctional cultivator



**KEEN &
GREEN**

Great crumbling, perfect planting bed

Planting bed preparation is a crucial element in the cultivation of potatoes. The MultiForce is a powerful, high-capacity cultivator, optionally executed with a six-tine system, which ensures a uniform crumbling of the soil and can operate at a considerable depth.

The MultiForce is mounted to the front of the tractor for use in combination with a rear-mounted planter, but can also be used, after a slight modification, as a rear-mounted soil cultivator. The aim during development was to keep the machine as compact as possible and still be able to offer the advantages of the large rotor diameter and the 6-tine design as a front cultivator.

■ Numerous advantages

The advantages of the front cultivator are quite clear:

- Uniform crumbling (128 hook tines or 192 (optional)): less dust, no clods.
- No chance of smearing underneath the ridges, making it possible to plant earlier in the season.
- A higher capacity with a lower consumption.

Creating ridges in front of the tractor and installing culture wheels on the tractor facilitates planting in unbeaten soil at the rear.

■ Good working depth, good ridge height

The amount of loose soil that is created during the preparation of the planting bed largely determines the potential volume of the ridge and, more importantly, the internal ridge height (= the distance between the potato and the top of the ridge).

With a rotor diameter of 750 mm, the MultiForce operates at a greater depth while requiring less power. The working depth can easily be set using the depth control wheels (spindle) and V-shaped spiral roller (pin/hole adjustment).

■ Perfect planting bed preparation = more marketable potatoes

Field tests have shown that the use of a front-mounted cultivator allows for a higher yield, a larger quantity of tubers and a more uniform size of the harvested product.

Proper soil crumbling ensures a good soil texture in the ridge, which is of benefit to the water management and temperature in the ridge.

This has a positive influence on the tuber setting and prevents tuber deformation. Furthermore, the harvesting capacity is increased thanks to the clod-free ridges.





High capacity, low consumption

■ Stable operation, less power required

The power that is exerted on the rotor and drive is uniformly distributed because the hook tines are mounted in a semi-helix shape from the center outwards.

The assembly in a helix shape from the center towards both sides eliminates the occurrence of transversal forces. This ensures the stable operation of the front cultivator.

The impact of the tines is uniform at all times, preventing any peak loads. This leads to a lower maximum required power.

■ The advantage of working with six tines

In addition to the model with the four-tine system, a model that uses six tines is also available.

- With a six-tine system, which is possible on the MultiForce, the force required to operate the machine decreases by 33%, which is equal to fuel savings of 33%.
- Thanks to the higher capacity obtained through the use of six tines rather than four, the machine can also be operated at a higher speed, which saves time.
- Due to a lower rotor shaft speed, the wear parts enjoy a longer service life.
- The tractor and drive system are more evenly loaded.

■ Tines remain free

One of the secrets behind the MultiForce's excellent operation is its spring-loaded hood. The protective hood is mounted using twelve springs, making it move continuously.

These vibrations ensure that less soil sticks to the hood: the machine will not get clogged quickly. This ensures that the tines will not be rotating in compressed soil, thus avoiding power loss and wear on the tines. If, under certain circumstances, soil nevertheless gets stuck to the cover, the path for the tines under the hood will remain unobstructed because the spring-loaded hood moves continuously closer to the hooks. As an option, cylinders can even be fitted to enable the operator to do this from the cab while driving. This will cause the excess soil to be scratched out. As a result, less power is needed and the tines are less prone to wear and tear.

■ Flat planting bed thanks to the head remover

The MultiForce is also available with a head remover for flattening the furrows. This gives the machine a more stable working depth.





■ Rotor speed

The MultiForce is equipped with a gearbox with gear drive on the side up to 250 hp as standard. The 6-tine system precludes the necessity of a gearbox because this system facilitates a wider crumbling range than the 4-tine machine, which is equipped with a gearbox, simply by varying a few hundred rpm on the PTO.

Speeds depend on the chosen gear in the side drive system.

18R	248-295-352 tpm
22R	303-360-430 tpm
26R	358-425-508 tpm

Gearbox (optional):

This option allows the rotor speed to be adjusted more precisely to suit the conditions. The result of this is a fine soil and a low fuel consumption.

■ Noses

By default, the machine is equipped with a full-width plate with removable V-shaped noses that free up the wheel tracks. If culture wheels are mounted on the tractor, it is possible to plant in unbeaten soil behind the tractor. When the operator starts creating ridges immediately, he can be assured that the seed potato will be positioned perfectly in the ridge, in adequately crumbled soil and no soil compression underneath the ridge.



All-in-one

■ Choose the drive line that suits your tractor/soil

The MultiForce is available as a 3088 mm model.

MULTIFORCE	4x75
Working width (mm)	3,088
Number of tines	128 (4 tines) 192 (6 tines)
Weight (kg)	1800
Dimensions (l x w x h in m)	2741x3324x1421
Required power kW/pk (min.)	90kW/120pk

■ Standard version

- Machine for front mount 4x75
- Heavy-duty frame with a block for front attachment (pecking points can be adjusted to 3 heights)
- Counterweight opposite the 3-speed gearbox
- Leveling plate with wide V-shaped noses
- V-shaped spiral roller in front (pin/hole depth adjustment)
- 2 depth control wheels
- Hardened tine mounts welded to the rotor
- Rotor with full width plate
- Rotor diameter with hook tines = 750 mm
- 128 hook tines 50x12 mm (M16 - 10.9 + M12 - 8.8) welded on
- Convex, spring-loaded hood mounted above the rotor
- 1000 rpm gearbox, 250 hp max
- Rotor rpm (288 rpm)
- Side drive with sprockets (mounted independently of the frame) (top sprocket 22R)
- 6-spline PTO drive shaft with cam clutch (for use as a front cultivator)
- Short head for mounting on tractors with long lifting arms



■ Options

- Top sprocket gearbox 22R (352 rpm)
- Top sprocket gearbox 26R (408 rpm)
- HD gearbox (3V) for 4x75 with continuous axle (up to 250 hp)
- Head remover (leveling bar for bar roller)
- Optional: WIDIA hook tines instead of the default solution for 3088 mm
- 6 tines on the rotor circumference instead of 4, with full-width cultivator, 192 tines in all (4x75) (40x10 mm)
- Optional: WIDIA hook tines instead of the default solution for 3088 mm full-width cultivator 6-tine model (40x10 mm)
- 4-Tine rotor, all segments welded to rotor tube, extra bolt behind the hook tine (no shear bolt operation) (instead of standard solution)
- Cleaning system for vibrating hood with hydraulic cylinders (Hydraulic connection: P 1/2" M)
- Road lighting with indication of width
- Gearbox cooling oil
- Long head for mounting on tractors with short lifting arms (Fendt)





Our KEEN & GREEN quality label indicates that our machines are equipped with techniques that promote durability and ease of use.

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■ **KEEN**

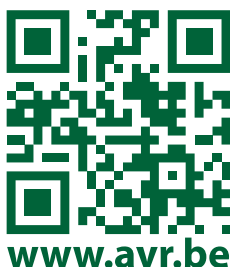
AVR never stops innovating and designs smart machines that make your work life easier and allow you to maximize your profits.

■ **GREEN**

Our machines are not only called green because of their striking color, but also because of their durability. The machines consume as little fuel as possible, and their solid construction ensures a very long lifespan. This means you will have recovered the costs of your investment in no time.



AVR bv, with head office in Roeselare, Belgium, produces a comprehensive selection of sophisticated machines for the potato industry (and other bulbous and tuberous plants). This includes planting bed preparation, planting, ridging, haulming, harvesting and hangar storage. Our mission is to make sure that more marketable products end up in the hangar using less input. So as to be able to offer you optimal support, we invest for instance in an extensive dealer network and a strong service department. AVR employs about 200 employees internationally, has a network of 100 dealers and had a turnover of 73 million euros in 2020.



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