

GASPARDO



**ROW-CROP
CULTIVATOR RANGE**

ROW-CROP CULTIVATOR RANGE

INTER-ROW MANAGEMENT

An essential part of conventional and organic farming, row-crop cultivation provides crops with a mechanical form of protection thanks to inter-row cultivation, and has numerous agronomic and environmental advantages. It is an interesting alternative to chemical products for the protection against weeds that find favourable conditions along inter-rows, settling and growing and thereby damaging crop productivity.



AGRONOMIC ADVANTAGES



- *Complete uprooting of weeds*
- *Improved biological activity in the terrain*
- *Reduced water loss in the terrain*
- *Improved water percolation*
- *Optimal aeration of the terrain for faster root development*
- *Fast absorption of mixed and sprayed fertiliser*
- *Reduced parasitic activity*

ECONOMIC ADVANTAGES



- *Reduced fertiliser dosage*
- *Less fertiliser loss thanks to implantation*
- *Convenience of mechanical weeding compared to chemical treatments*
- *Versatility of row-crop cultivators for use on numerous crops and under varied operating conditions*
- *Higher working speed*

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ENVIRONMENTAL ADVANTAGES



- *Reduced use of chemical crop protection products*
- *Reduced distribution of chemical fertilisers thanks to localisation*
- *Reduced erosion of soil surface*

Heavy duty unit

A robust range created from GASPARDO expertise

Specialists in the field of precision planting, GASPARDO is also renowned for the reliability of its products and for producing row-crop cultivators with operating capacities that are carefully designed for inter-row cultivation of the most common extensive crops, from grains to vegetables.

Sturdiness, manoeuvrability and versatility characterise every machine in the range. The choice of row-crop cultivator depends not only on the size of the inter-row, but also on fertilisation coverage and road width requirements.

Heavy duty

The robust parallelogram means the equipment travels upright, therefore ensuring the depth of hoeing remains constant.

Quick decoupling

Automatic coupling of equipment for transportation.

High ground clearance

High ground clearance prevents crops from being damaged and means row-crop cultivators can be used even during advanced development stages of the crops.

Fixed elements

The working elements are firmly fixed to the row-crop cultivator unit.

Depth control

The depth control wheel with ball bearings guarantees constant and uniform operation.

No maintenance

The internal bushings are hardened and wear-resistant and the outer bushings are self-lubricating.

Accurate depth control

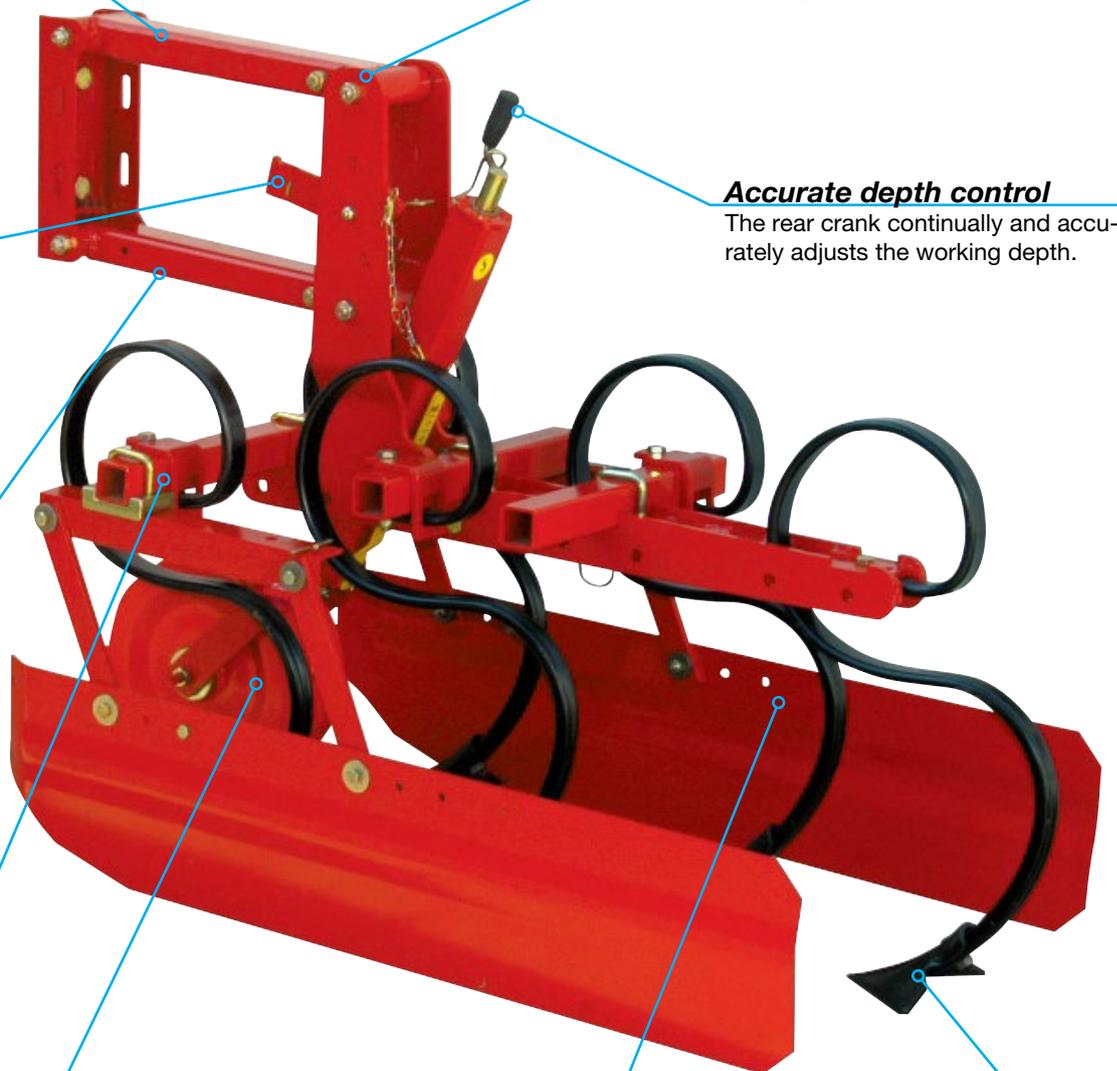
The rear crank continually and accurately adjusts the working depth.

Raised guard flaps

Side guards prevent excessive amounts of small plants being dug up. Their raised position allows them to follow the profile of the soil perfectly.

Resistance against wear

The 12 mm thick springs provide higher performance and are less resistant to wear.



Technology made easier

Chassis designed for all situations

The models in the range are mainly characterised by the type of chassis:

- Fixed (HL)
- Folding (HP and HS)
- Fixed with independent sections (HR)

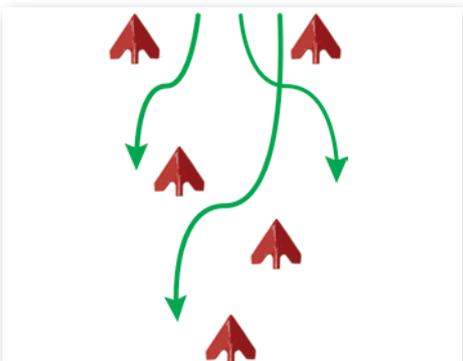


Greater load pressure

The load spring, the position of which can be adjusted by the parallelogram, allows the row-crop cultivator equipment to penetrate even the hardest terrain.

Versatility through multiple configurations

The row-crop cultivator can be configured to meet various operational needs by adapting it to the nature of the terrain and the specific type of work.



Superflow

The spacing and positioning of the springs enables a smooth flow of soil, without the risk of clogging.

The position of the tools, ploughshares and hoes can be changed to adapt to any working condition.

HL

Fixed chassis row-crop cultivator



HL-6R 3MP

HL

The HL model is simple and effective, ideal for companies that do not have size issues during road transport.



Maximum stability

320 mm load-bearing wheels are also available on request, and can be adjusted to maintain the chassis at a constant height and ensure more precise movement between the cultivated rows, thanks to the central ridge on the wheels.

Increased grip even on slopes

Directional discs efficiently control the drift of the row-crop cultivator, making it ideal for areas with steep slopes or curvilinear terrain.



Maximum load capacity

400 mm diameter wheels come as standard on all double chassis models. This makes a greater load capacity possible, even on row-crop cultivators with greater working widths.



HL-4R 5MP

Characterised by a fixed chassis, the HL is available in various sizes (up to 6.50 m) and with varying numbers of row-crop cultivator rows (two to twelve), meaning it can adapt to different company and cultivation requirements.



Higher working capacity

HL DT models are ideal for companies that operate over large areas of flat ground and do not require direct road transport.



Solid and robust

The HL DT version, with eight or twelve rows and a width of 650 cm, is characterised by a robust and reliable double chassis.

HL	Row spacing cm	Row no.	Element type	Hopper capacity l	Chassis length cm	Weight kg
HL-4	45-50	4	3MP-3MDD-3ZD	2 x 160	325	460
HL-6	45-50	6	3MP-3MDD-3ZD	2 x 160	325	680
HL-12 DT	45-50	12	3MP-3MDD-3ZD	4 x 160	650	1180
HL-7	50	7	3MP-3MDD-3ZD	-	420	540
HL-7	60	7	5MP-5MDD-3ZD-3MD	3 x 200	500	860
HL-4	70-75	4	5MP-5MDD-3ZD-3MD	2 x 160	325	560
HL-6	70-75	6	5MP-5MDD-3ZD-3MD	2 x 160	500	635
HL-8 DT	70-75	8	5MP-5MDD-3ZD-3MD	4 x 160	650	1240

HP

Row-crop cultivator with simple folding chassis



HP-4R 5MMD

HP

The manual closure of the folding wings on the HP model chassis reduces the overall dimension to 2.50 m for driving on roads and maintains the standard working width of 3.50 m.



180° folding chassis

The special manual or hydraulic (optional) closing of the wings to 180° reduces the overall dimension on the road to within 2.50 m.

Greater stability on terrain

Load-bearing wheels are also available on request (320 mm diameter), and can be adjusted to maintain the chassis at a constant height and ensure more precise movement between the cultivated rows, thanks to the central ridge on the wheels.



PTO transmission

On four-row versions, the transmission in the fertiliser spreader is also available with a Cardan shaft.



HP-4R 5MP

Being able to effortlessly switch from four rows to six using the appropriate kit means that the HP row-crop cultivator can be used for all forms of row cultivation. A wide range of attachments allows models to be customised.

According to the preferences of the farmer, there are two hopper options for fertiliser spreaders:



160 l plastic hopper with two compartments



400 l metal hopper



Rubber depth-control wheels

The standard depth-control wheels are made out of iron with ball bearings. They are also available in rubber to stop the soil from sticking to them in extremely humid conditions.

HP	Row spacing cm	Row no.	Element type	Hopper capacity l	Chassis length cm	Weight kg
HP-4	45-50	4	3MP-3MDD-3ZD	2 x 160	350	500
HP-6	45-50	6	3MP-3MDD-3ZD	2 x 160	350	600
HP-4	70-75	4	5MP-5MDD-3ZD-3MD	2 x 160	350	560

HS

Row-crop cultivator with hydraulic folding wings



HS-8R EFM 5MP INOX

HS

The HS is a professional row-crop cultivator that combines a high level of autonomy, thanks to the large hopper also available in stainless steel (950 l), with a minimal overall dimension on the road (2.50 m).

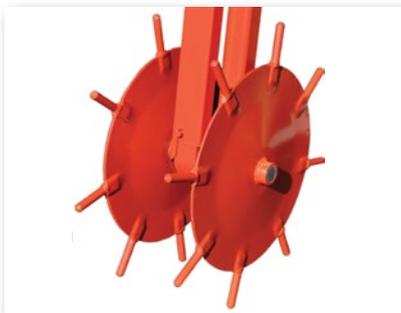


Safe transport

The hydraulic closure makes it very easy on the operator. Road transport is safe and stable thanks to the automatic locking of the lateral wings.

Even distribution

Fertiliser is always distributed evenly: it is gravitational in the central rows and pneumatic in the side rows. The big bag hopper load is convenient and easy.



More efficient transmission

The twin driving wheel is provided as standard to ensure greater transmission precision and stability.

Maximum robustness and load capacity

All versions that are equipped with fertiliser spreaders benefit from a double fixed chassis for increased robustness. 400 mm load-bearing wheels guarantee greater load capacity on the terrain.





HS-8R 5MDD INOX

The pneumatic distribution of fertiliser on the side rows ensures maximum and even fertiliser distribution; standard HS models are also equipped with the SPEEDY SET centralised distributor adjustment system.



Exclusion of external rows

On the HS-EFM version, the outermost elements on the lateral wings can be closed hydraulically to enable ample row-crop cultivation of seed heads and any overlapping crops.



Electronically controlled selection

On the HS-EFE version, selecting between closing the lateral wing or the external row is done electronically and can be executed directly from the cab, without having to leave the tractor.



PA1 front hopper

Versions not equipped with fertiliser spreader hoppers have a short chassis (models HS-TC), making the row-crop cultivator more compact. Alternatively, the PA1 front hopper with pneumatic distribution is also available for these models.

HS	Row spacing cm	Row no.	Element type	Hopper capacity l	Chassis length cm	Weight kg
HS-6	45-50	6	3MP-3MDD-3ZD	1 x 950	422	422
HS-8	45-50	8	3MP-3MDD-3ZD	1 x 950	692	692
HS-12 TC	45-50	12	3MP-3MDD-3ZD	-	692	692
HS-24 TC	45-50	24	5MP-5MDD-3ZD-3MD	-	1145	1145
HS-7	60	7	5MP-5MDD-3ZD-3MD	1 x 950	551	551
HS-4	70-75	4	5MP-5MDD-3ZD-3MD	1 x 950	422	422
HS-6	70-75	6	5MP-5MDD-3ZD-3MD	1 x 950	551	551
HS-8	70-75	8	5MP-5MDD-3ZD-3MD	1 x 950	692	692
HS-12 TC	70-75	12	5MP-5MDD-3ZD-3MD	-	944	944
HS-16 TC	70-75	16	5MP-5MDD-3ZD-3MD	-	1145	1145
HS-18 TC	70-75	18	5MP-5MDD-3ZD-3MD	-	1271	1271

HR

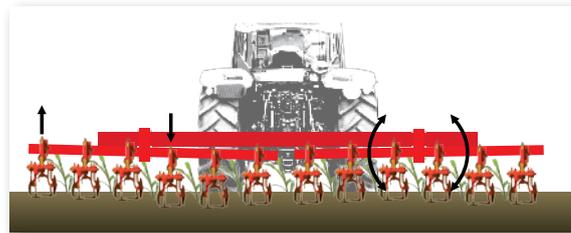
Row-crop cultivator with fixed chassis and independent sections



HR-18R 3MP

Maximum working capacity for large-scale companies

The HR model is characterised by high productivity. The fixed chassis with two independent sections allows for uniform operation, even on irregular and uneven terrain. The HR is available with 12 or 18 row-crop cultivator units. The choice between an integrated or independent trolley enables road transport with an overall dimension measuring 3 metres.



Maximum adaptation to the terrain

The main chassis supports two independent sections that can perfectly follow even the most irregular terrain. Each single element is independent, making it possible to adapt to the contours of the terrain.



Main chassis wheels

The pneumatic wheels, located at the front of the main chassis, maintain the working depth setting.

Transport solutions

The HR model is available in a light version and with an integrated trolley. The light version can be transported on roads using the optional trolley, equipped with steering wheels. Versions with an integrated trolley, by contrast, have a chassis with a drawbar that can be connected to a tractor hitch.



Light version



Version with integrated trolley

HR	Row spacing cm	Row no.	Element type	Hopper capacity l	Chassis length cm	Weight kg
HR-L 12	70-80	12	5MP-5MDD-3ZD-3MD	4 x 280	1020	2260
HR-12	70-80	12	5MP-5MDD-3ZD-3MD	4 x 280	1020	3680
HR-L 18	45-50	18	3MP-3MDD-3ZD	4 x 280	1020	2300
HR-18	45-50	18	3MP-3MDD-3ZD	4 x 280	1020	3550

Row-crop cultivator unit configurations



5MP row sp. 75

Springs and guard flaps (5MP and 3MP)

Raised guards are the most common solution: they allow the row-crop cultivator to be used even in the early stages of crop development, keeping the plants from being covered in the dug up terrain.

Recommended for every type of terrain.



3MP row sp. 45



5MDD row sp. 75 cm

Springs and guard discs (5MDD and 3MDD)

Particularly effective at providing the precision and delicacy required when working close to plants, the rotating discs ensure there is no risk of clogging or dragging up stones.

Recommended for stony terrain or that which is covered in a large amount of residue.



3MDD row sp. 45 cm



3ZD row sp. 75

Ridging discs and adjustable hoes (3ZD)

The blades dig up the weeds at the root. The rear ripper digs up the earth and its working depth can be increased or decreased.

Recommended for ensuring the terrain is worked vigorously, particularly suited to extremely weedy plots.



3ZD row sp. 45

Additional working equipment

The row-crop cultivator can be enhanced with additional working equipment that can be used individually or in combination to suit any requirements. Easy to install, they can be set to three different positions depending on the chosen configuration of the equipment.



21.5 cm hoe

Hoe with ploughshare

The hoe carries out inter-row cultivation, and thanks to the ploughshare, soil is accumulated at the plant base so that the roots are strengthened and enriched.



30 cm hoe



Ridging hoe with adjustable wings

By opening the wings, the amount of terrain earthed up around the plants is controlled. Easy to install, they can be set to two different positions depending on the configuration.

The resulting furrow is deep and suitable for surface irrigation.

MINIMAX fertiliser spreader

SPEEDY SET

Centralised distributor adjustment: fast, precise and convenient.

No blockages

The removable grille filters any foreign bodies that could damage the distributors.

Even distribution

The shaker ensures the product is continually sent to the outlet nozzle.



Even release

The flow deflector stops fertiliser from becoming compressed and ensures it is evenly released.

MINIMAX volumetric distributor

Easy to control to ensure even distribution at different dosages: 50-700 kg/ha. They are made out of plastic and therefore do not need lubricating.

Easy emptying

The nozzles allow the tank to be emptied for cleaning purposes.

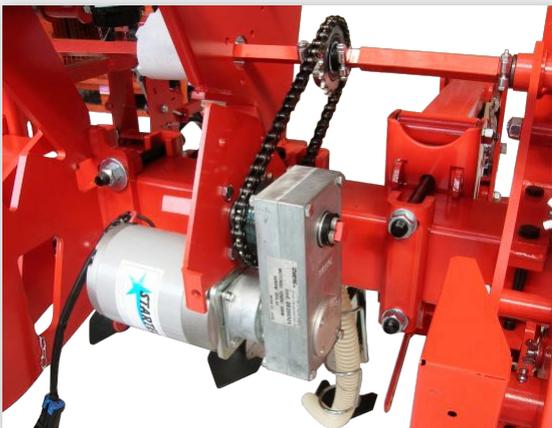


Safe distribution

The SOFT FEEDER silicone rubber rollers, located inside the MINIMAX distributors, distribute grainy fertiliser without causing any damage.

Electronic transmission for fertilising overlapping rows

The fertiliser spreader's electric dosing system is the ideal solution should the row-crop cultivator need to be raised in order to avoid damaging overlapping rows. The electric engine can be activated via the control unit in the cab, as it continues to distribute the fertiliser and maintains the preset dosage without the use of the transmission wheel.



Simple and efficient – can used by everyone

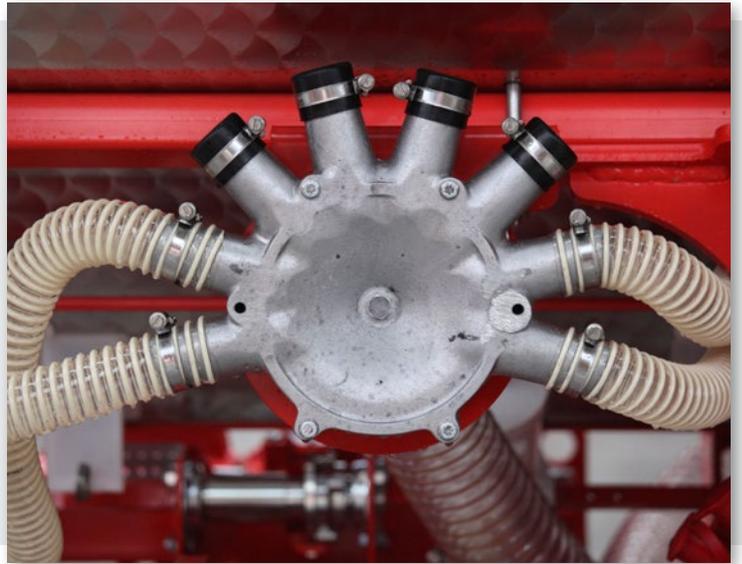


SPEEDY SET

A reliable centralised system that simplifies and maximises the speed at which fertiliser distribution is controlled. The settings for each single MINIMAX distributor can be saved in just one step.

Pneumatic transport system

The blower creates a depression that enables pneumatic transport, even via the external element distributor pipes, to guarantee maximum and even distribution.



Inspection windows

The level of fertiliser in the hopper can be easily kept under control directly from the driver's seat via the two inspection windows.

GUIDA INTELLIGENTE

Electro-hydraulic driving



GUIDA INTELLIGENTE HS-TC 12R 3MP

GUIDA INTELLIGENTE

Increase hoeing precision and working speeds, even with the row-crop cultivator connected to the tractor! GUIDA INTELLIGENTE is an independent assembly fitted between the tractor and the row-crop cultivator that automatically drives the machine according to the crop rows – no manual intervention is required. Driving is managed by a sophisticated interface system with a camera that follows one or more of the crop rows to be worked, controlling a highly reactive electro-hydraulic correction system.



Fully computerised autonomy

The dual-lens camera identifies the plants by distinguishing their green colour from that of the terrain. This enables it to calculate the centre of the row and compare it with the current position of the attachment. Should any adjustments need to be made, the unit acts accordingly via an electronically controlled hydraulic valve.

Quick coupling

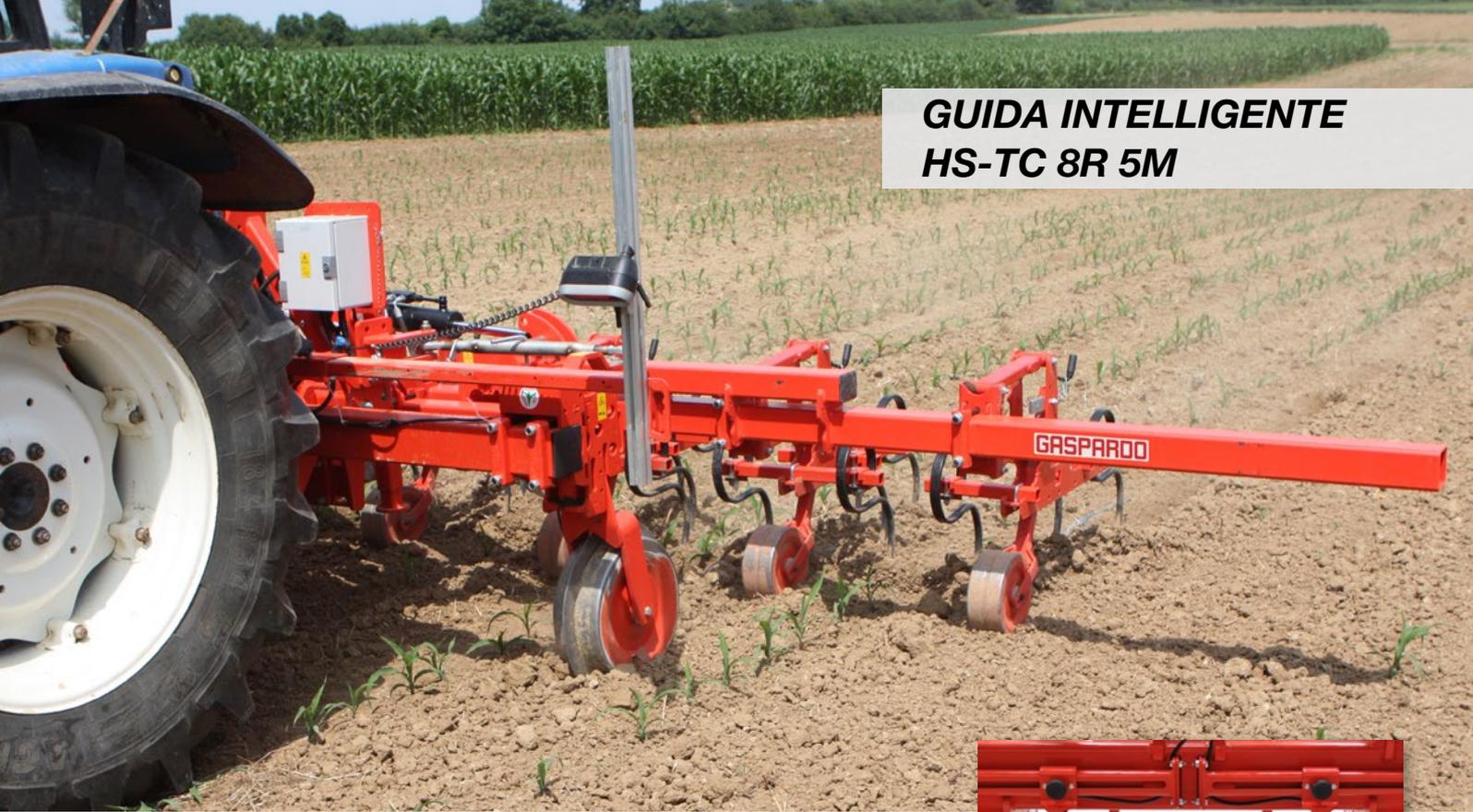
The assembly can be easily coupled and decoupled from the attachment using the 3-point linkage. Various types of row-crop cultivators and inter-row mechanical hoes can be attached if required.



It offers optimal view of the field, even in the dark

The xenon headlights (optional) ensure that the camera's view of the field is fully illuminated, even when sunlight is scarce, allowing a clear distinction to be made between the crop row and the inter-row.

GUIDA INTELLIGENTE HS-TC 8R 5M



Suitable for use on developed crops

Mechanical sensors enable driving even when crops are in the advanced development stage, when the inter-rows cannot be seen properly by the camera.



Support wheels

Rubber wheels are an economical solution when working under normal conditions on uneven terrain. This is not the case for sloping terrain, however, as the use of iron wheels with a central ridge is recommended in order to ensure the stability of the row-crop cultivator.

Full control

Thanks to the COMMUNICATOR 2 terminal that conforms to the ISOBUS communication protocol, working parameters and possible system adjustments are displayed. The driver can check the plants displayed on the monitor and consequently react quickly to any deviations.



ORGANIC AGRICULTURE

The innovative solution with GUIDA INTELLIGENTE

Row-crop cultivation is just as effective on narrow rows

Inter-row cultivation is once again in the news due to the increase in popularity of organic agriculture. Responding to the requirements of today, GASPARDO has designed a winning solution for inter-row cultivation that is suitable even for narrow rows, like those of wheat and rice crops. GUIDA INTELLIGENTE is an out-and-out revolution with regard to organic agriculture.



Comfortable row-crop cultivation with maximum delicacy

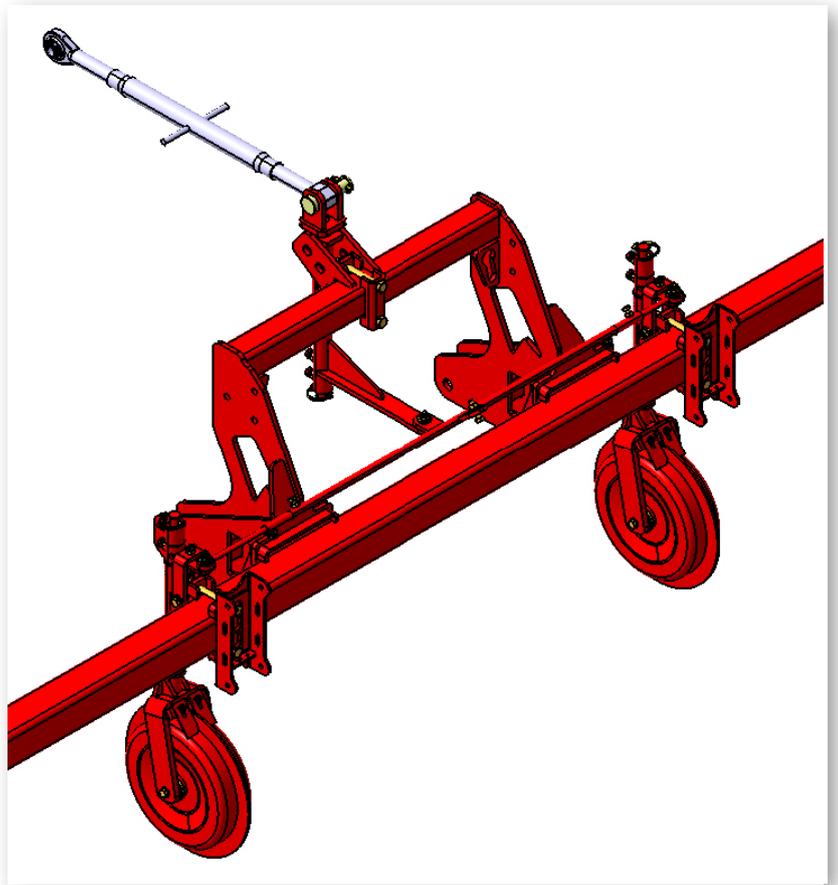
The extreme precision provided by GUIDA INTELLIGENTE means that hoes can be within 3 cm of plants, thus increasing working speed and improving efficiency. This is made possible by the high reactivity of the hydraulic system in response to variations in working speeds.



AUTOMATIC DRIVING

Automatic driving

Connected to the tractor by means of a 3-point hitch, automatic driving allows the operator to rework sown crops in a non-linear manner, without causing any damage. This driving system automatically directs the machine to accurately follow the trajectory of the tractor (even on bends).



GASPARDO

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