

Rothenburger Str. 45
91438 Bad Windsheim
Germany

v +49 (0) 9841 - 92 - 0
m info@schmotzer-ht.de
w www.schmotzer-ht.de

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SCHMOTZER 

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Why hoeing?

Advantages of mechanical weed control



Crop management

- Water savings in the soils thanks to breaking the capillarity
- Targeted mechanical removal of weeds and grasses
- Elimination of problem weeds or volunteer plants – even with pronounced resistances such as slender meadow foxtail, millet and silkybent grass
- Promotes root growth thanks to loosened and moist soil
- Prevents growth stress and foliar damage due to the application of herbicides, e.g. leaf necrosis in turnips
- Control of weather-related late and perennial weed growth
- Ideal desiccation of the weeds at the soil surface
- Reduction of fungus infection thanks to faster drying and better aeration of the crop



Soil management

- Breaking up crusts after heavy rainfall promotes soil aeration and root growth
- Hoeing reduces erosion and leads to better water absorption
- Nutrient mobilisation thanks to higher microorganism activity
- Targeted promotion of mineralisation, e.g. for tillering
- Gentle tillage of the soil
- Immediate incorporation of mineral and organic fertilisers



Ecological responsibility

- Sustainable soil management
- Reduced harmful substance accumulations in the soil and groundwater
- Solution to the volunteer rapeseed problems in rapeseed crops thanks to mechanical selection
- Elimination of active substance-resistant problem weeds
- Reduction of crop protection product applications
- Minimised health risks for the driver
- "Greening" of agriculture



Reduction of crop protection products

- Product savings of up to 85 % are possible thanks to the use of the implement combination consisting of a hoeing machine and band spraying equipment
- Compliance with state regimentation



Weeds and grasses cannot develop resistance against the effects of a hoe share.





What is truly important?

Optimum conditions for hoeing operation



Technology

- Narrow front edge of the share, since the ridging effect of the hoeing tool should not be too strong. This enables higher forward speeds.
- Exposing of weeds with the Vibro effect – these lightly sprung elements enable more shallow and more precise depth control with better crumbling and weed control.



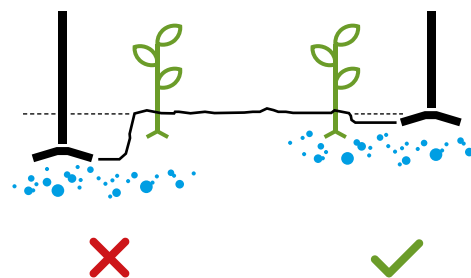
Weather conditions

- To hinder uprooted weeds from taking root again, it is recommended to perform hoeing operations at the beginning of dry periods or as early as possible in the day.
- Regular hoeing passes reduce weed pressure and the risk of late weed growth during rainy periods



Use

- With blind hoeing, always pay attention to the placement depth of the seed
- Dormant weed seeds must not be stimulated to germinate
- Shallow and uniform hoeing while remaining gentle on the roots and capillary water
- As deep as necessary, as shallow as possible: 2-3 cm



Water supply to the plant with incorrect and correct working depth

The SCHMOTZER hoe

Yesterday as today – the original.

Every SCHMOTZER implement is the result of lifeblood, longstanding experience, and precision. Not only have we invented the hoe, we also continuously developed it further.

Based on extensive knowledge and ingenuity, our products has stood for unsurpassable reliability, high flexibility, and utmost precision for decades.

With more than 100 years of experience, SCHMOTZER offers solutions that are suitable for the cultivation of various produce such as cereals, turnips, maize, vegetables, and special crops around the world, under a wide range of soil and climate conditions.

Each product is individually manufactured at the Bad Windsheim competence centre, and is given the highest degree of precision and material quality.

Customised to meet the customer's needs, each implement is one of a kind, and we are proud of that.

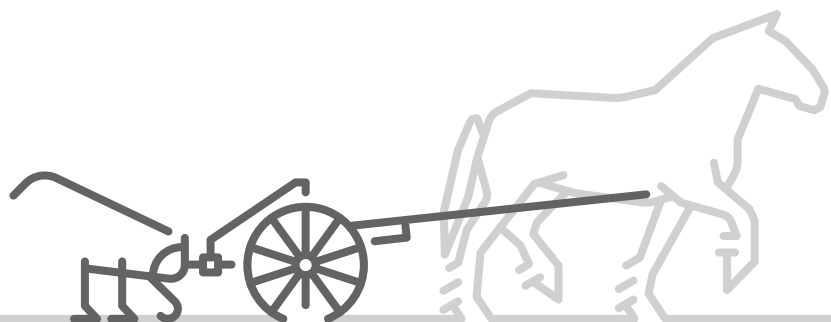
Flexibility, precision and cost savings

Today, a SCHMOTZER hoe is a true all-rounder. Thanks to the modular design of the assembly groups, each implement can be configured to meet the customer's individual requirements.

Maintenance-free bearing points as well as wear-optimised tools, in combination with intelligent lighting concepts, enable long working days.






Unique quick-change systems reduce necessary downtimes to a minimum.

Functional solutions await you, which, amongst other things, make burying of the crops controllable or precise depth control – thanks to the star parallelogram – a matter of course. If you want, SCHMOTZER implements can even take care of the tracking themselves.

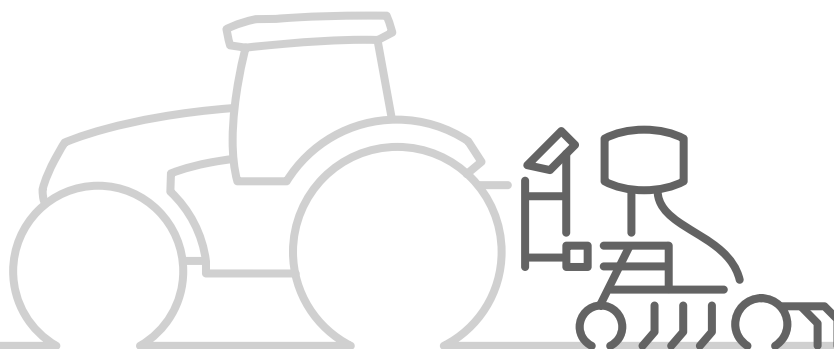


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Technical possibilities

-  Forwards speeds up to 15 km/h
-  Row widths above 12.5 cm
-  Working widths up to 12 m
-  Systems for front mounting, mid mounting and rear mounting
-  Hydraulic parallelogram lift-out
-  Many variation options with a wide range of hoeing tools
-  Hoeing between the rows with adjustable finger hoes
-  Always the required hoeing depth with Vibro springs and shares
-  Various tracking systems with parallel sliding frame
-  The right solution for any row crop

And much more ...



TODAY

Venterra 2K

The all-rounder for high performance, area efficiency, and flexibility





VENTERRA 2K at a glance

Maximum frame clearance

For working even in very advanced crops

Maximised parallelogram lift-out

for working in tall crops

Slide rail structure on two levels

for flexible arrangement of the parallelograms

Ultra-sturdy frame

for all types of soils, maximums loads as well as high working speeds to maximise the hectare efficiency

Venterra 2K

The all-rounder for high performance, area efficiency, and flexibility

The Venterra combines a unique clearance with a maximised lifting height of the parallelograms of up to 50 cm, and therefore opens up new opportunities for mechanical weed control, even in very tall crops. Thanks to the high frame clearance and the synergy with Section Control, hoeing all the way into the last corner is possible without causing damage, even when driving into crops with a height of up to 1 m from the headlands.



Slide rail profile

When designing the new Venterra slide rails, particular attention was paid the stability.

The slide rail is structured on two superimposed levels. This provides the possibility of achieving all row widths with one slide rail. This gives the customer flexibility to respond to changing operating conditions. In addition, a simple clamping of the parallelograms was implemented, so that it is also possible to adjust to different row widths.

Frame

The compact design of the Venterra reduces the required front ballasting of the tractor and provides the customer with full flexibility under changing operating conditions. The distance from the rear parallelograms to the lower links was further reduced.

Maximised slide rail clearance

For the Venterra, a higher version of the combined parallelogram was developed. Together with the new slide rail, a clearance of up to one metre can be achieved. This expands the time window for operations and therefore the utilisation of the Venterra 2K. Late weed growth can also be effectively controlled by late hoeing in tall crops.

Section Control (SC)

The single parallelogram lifting of up to 50 cm sets new standards for hoeing technology. The strengths of the system are apparent on the headlands through damage-free hoeing of sensitive crops or tall plants.

Tool combinations

The typical tool options such as hoe protection discs, finger hoes, ridgers, harrow etc. are also available for the Venterra. This series can also be equipped with application systems such as Row-Spray band sprayer equipment.





Technical data

Machine type	6x75 cm	8x75 cm	9x75 cm	12x45 cm	12x50 cm
Parallelograms					
Venterra 2K combined parallelogram, large KPP-L SC	✓	✓	✓	✓	✓
Venterra 2K combined parallelogram, medium KPP-M SC	✓	✓	✓	✓	✓
Venterra 2K combined parallelogram, medium KPP-M	✓	✓	✓	✓	✓
Accessories					
Section Control connectivity	ISOBUS				
Required oil quantity for Section Control per KPP-L SC	6 l/min				
Required oil quantity for camera control	approx. 9 l/min				
Number of single-acting control units in conjunction with pressureless return flow	2				
Number of double-acting control units	1				
Weight of the Venterra 2K *	1340 kg	1460 kg	1530 kg	1560 kg	1560 kg
Pulling force requirement	above 80 HP				
Transport width	2.95 m				

* Basic equipment with AV 5 sliding frame and parallelogram type KPP-M

SCHMOTZER Select

The individual solution for any crop and any farm





With SCHMOTZER 5 steps ahead ...



No yield losses due to high soil compaction

SCHMOTZER hoeing machines are characterised by a particularly lightweight design.



Precise row guidance

SCHMOTZER sliding frames guarantee precise control along the crop rows.



Hoe share changing in record time

With the tool-free SCHMOTZER RapidoClip system, tedious changing of worn shares is a thing of the past.



Excellent work results even on hilly terrain

On SCHMOTZER implements, trailing tools are mounted on a separately guided parallelogram and therefore enable direct soil adaptation in any situation.



Maintenance-free bearings as standard

The parallelograms on SCHMOTZER hoeing machines are maintenance-free as standard. Save the time and money for annoying maintenance measures.





Frame

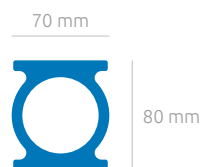


The right solution for any working width

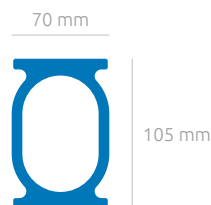
Profile versions

SCHMOTZER Select hoeing machines are available in both rigid and folding versions. Hydraulic vertical folding is a simple and quick variation for hoeing machines up to 9 m working width. Here, the outer segments are folded up vertically. The advantage of this variation is that the hoe elements are still positioned horizontally when they are folded. Folding takes place with a double-acting hydraulic control unit. With working widths of 9 m, the hoeing machine can also be used as a 6 m implement, since this working width is equipped with double folding. This offers an optimal solution for e.g. contractors, since the hoeing width should always be adapted to the seeding and row width.

The tension struts or the optional double slide rail prevent radial movement of the outer segments of the implement slide rail with larger working widths and/or higher speeds. In combination with a band sprayer, a double slide rail is installed as standard equipment to increase precision, even with high area efficiency.



Normal profile



High profile



Typically SCHMOTZER

- Hollow profile frame for maximum strength and flexibility and at the same time, low implement weight
- Easy row adjustment using an implement slide rail with two flange levels
- Known as robust because extruded rail is made of full material
- No signs of fatigue in the implement slide rail
- Additional stability thanks to high profile in the centre part of hydraulically folding implements as well as for rigid slide rails above 5 m working width

Mounting variations

The ideal solution for every user

To offer every customer an optimal solution for mounting the hoeing machine on their tractor, SCHMOTZER has versions for rear, front and mid-mounting. In addition to these individual mounting variations, there is also the option of combining front and rear mounting of a machine. With this option, the machine can be operated both at the rear with camera control and at the front for special requirements. This means that, thanks to a double linkage, the same machine can be used both for front mounting and rear mounting, which facilitates entry into hoeing technology, especially for small and medium farms. The mounting variation can be selected independent of the working width and the respective row width.



Front mounting

Front mounting operation enables a full view of hoeing operations, and can be achieved with different front-mounting carriers. Even with front mounting, the parallelograms are always pulled and not pushed, so that the work quality is always ideal. There are no restrictions in terms of the additional tools, such as finger hoes. All SCHMOTZER parallelograms are suitable for front mounting. To meet the requirements in different crops, parallelograms of the same size can be combined.



Mid mounting

Positioning of the hoeing machine in the middle of the tractor enables smooth and precise guidance. Thanks to a direct view of the crop and tools, the implement can be precisely controlled manually. Take advantage of your implement carrier with low operational weight. SCHMOTZER rolling devices facilitate easy installation and removal of the mid-mounted hoeing machine.

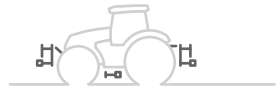
The following coupling parts are used for mid mounting:

- **Type A** for Fendt GT 220-231
- **Type F** for Fendt GT 250-380 (with pendulum compensation)



Rear mounting

In combination with a camera system, rear mounting provides the optimal conditions for high area efficiency. With this mounting area, a wide range of combinations can be achieved. As an alternative to camera control, row guidance can be accomplished by manual steering or direct mounting on the tractor. Moreover, rear mounting also offers the option to seed nurse crops with a GreenDrill pack top pneumatic spreader or to install the Row-Spray band sprayer equipment. Rear mounting is possible with all SCHMOTZER parallelograms. To meet the requirements in different crops, parallelograms of the same size can be combined.



Parallelograms

Precise tool guidance on any substrate



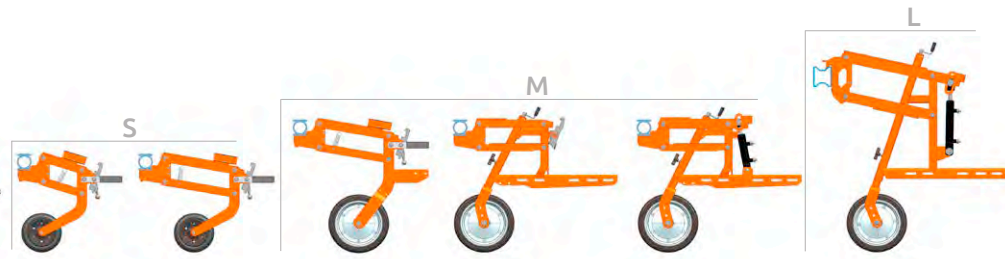
Typically SCHMOTZER

The parallelogram is the foundation for optimum tool guidance. This is where work quality begins. This is why SCHMOTZER relies on one parallelogram per crop row. All bearings of the parallelograms are maintenance-free as standard.





Parallelogram overview



	EKP-S short	EKP-S	EKP-M	KPP-M	KPP-M SC	KPP-L SC (only for Venterra)
	S		M			L
Frame passage clearance	to 60 cm		up to 80 cm			up to 100 cm
Suitable for Venterra				✓	✓	✓
Suitable for Select	✓	✓	✓	✓	✓	
row widths	As of 16 cm	As of 16 cm	16 - 40 cm	As of 12.5 cm	As of 12.5 cm	As of 12.5 cm
Working widths	0.5 m to 12 m					up to 6.75 m
Weight	13 kg	15 kg	22 kg	30 kg	35 kg	52 kg
Guide wheel	200 x 67 mm (optionally with ball bearing)		300 x 100 mm (with ball bearing)	300 x 100 mm (with ball bearing, depth can be infinitely variably adjusted using a spindle with a scale)		
Number of shares	1 share		1 share	1 - 5 shares		
Maintenance-free Joints	✓	✓	✓	✓	✓	✓
Comments	Particularly suitable for cereal cultivation and narrow rows. With narrow row spacings, alternation of EKP short version and EKP long version		Particularly suitable for cereal cultivation and narrow rows. Combination with KPP is possible	The best-selling parallelogram with maximum tool flexibility. Combination of multiple shares (1 - 5) and share widths is possible		

Combined parallelogram

KPP-M / KPP-L

The Combined parallelogram (KPP) is the most versatile and best-selling parallelogram in hoeing technology. It can work with a wide variety of row widths and numbers of rows. Sugar beets, maize, soy or pumpkins represent just a small selection of the possible crops.

The combined parallelogram (KPP-M) offers a maximum passage clearance on the frame of up to 80 cm. With an frame clearance of up to 100 cm, the high-lift parallelogram (KPP-L) is suitable for taller crops. Up to 5 tools are possible on the KPP. With a row spacing of 45 cm, 3 hoe shares with a width of 140 mm are installed as standard equipment. With a row spacing of 75 cm, in contrast, 5 shares with a width of 160 mm are installed. The share overlap in the working area ensures reliable cutting of the weed roots. Weeds are cut off across the full area and are deposited on the surface.

Moreover, a wide range of tools can be attached onto the KPP. The combination with finger hoes enables e.g. targeted tillage of the space between the plants.

A KPP offers the option of hoeing on row widths of up to 80 cm. The parallelogram is mounted on maintenance-free, torsionally resistant bushes. Hoe protection discs can be installed for higher working speeds as well as cloddy soils.

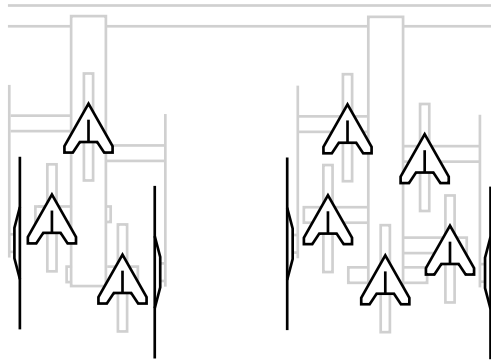


Typically SCHMOTZER

Special equipment that can be combined with the KPP-M:

- Various hoe protection discs
- Wide range of shares
- Wide range of trailing elements, e.g. finger hoes and ridgers
- RowSpray band sprayer
- Nurse crop seeding systems and fertiliser application systems





Configuration for 45 and 50 cm row width

Configuration for 75 cm row width

Configuration of the Vibro shares on the KPP

Row width	Quantity x size of the shares
above 12.5 cm	3 x 80 mm
As of 20 cm	1 x 120 to 180 mm
From 30 cm to 60 cm	1 x 200, 300, 400 mm or 3 x 140, 160 or 180 mm
From 60 to 100 cm	5 x 160, 180 or 200 mm
From 100 cm to 150 cm	6 x 180, 200 or 240 mm
From 150 cm to 200 cm	10 x 140, 160 or 180 mm



Single combined parallelogram EKP-S / EKP-M

EKP-S

The small single combined parallelogram (EKP-S) has an integrated Vibro share guide, which precisely guides the depth of the share. This is necessary, on the one hand, to cut weeds across the full area, and on the other, to avoid stimulating the germination of dormant weed seeds by tilling too deep.

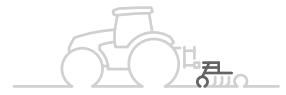
In addition, double shallow ridgers and various harrow systems can be installed on the EKP-S. For tractors with limited lifting height as well as for mid-mounting, the working height of the EKP-S can be set in three stages. Particularly with narrow row widths as well as will high risk of clogging on the field, the EKP-S's can be arranged alternating short and long. The passage clearance of the frame is 60 cm.

EKP-M

The EKP-M is the small combined parallelogram, ideally suited for narrow rows. The shape and passage clearance of the EKP-M is adapted to the big KPP, so that the two parallelograms can be combined on a hoeing machine. For example, KPP-M working in the tramlines and EKP-M on the crop rows. Here, the passage clearance is up to 80 cm. Both the smaller EKP-S and the bigger EKP-M are each equipped with a share, and have integrated depth control with a guide wheel. The cutting width of the shares is adjusted to the row width. Like on the KPP-M, a wide range of additional tools can be used on the EKP-M.

Alternatively, large row spacings and the tractor track can be hoed across the full area with several EKPs in combination. One hoe share per parallelogram ensures excellent ground adaptation and uniform hoeing depth.





Hoe shares

Tools for any requirement



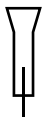
Duckfoot shares

The duckfoot share is the crucial element for optimal tillage. The flat design ensures direct deposition and desiccation of the weeds at the surface. With share widths of 80 mm to 380 mm, the right cutting width is available for any row width. The long flanks minimise the susceptibility to clogging and achieve an intentional overlap of several shares in a row, thus preventing weed roots from slipping through. Carbide versions reduce wear.



Rotavator blade

The optional Rotavator blades offer an alternative to the duckfoot shares directly at the plant. Rotavator blades ensure precise cutting of the weeds close to the crop row. In addition, unwanted clods can be cleared out of the rows. The Rotavator blades can be used independently of the row width.



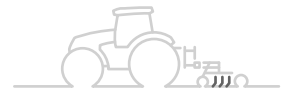
Hoeing chisel

Hoeing chisels are available from SCHMOTZER as an additional option. For narrow row spacings, as is often the case in cereal crops, they can be used to work in the connecting row. Moreover, the hoeing chisels can be used on heavy and/or dry soils to break up the soil.



Spring tines

The spring tines are an option for achieving a mixing effect and incorporating organic matter into the soil with hoeing technology. In doing so, weed deposition at the surface is limited. The focus is particularly on crumbling.



RapidoClip system

Hoe share changing in unparalleled record time

Durability in conjunction with a sharp cutting edge are essential for hoe shares. The hoe shares should achieve full-area cutting in the top 2 to 3 cm of the soil. When the shares are worn, it should be as easy and quick as possible to replace them to minimise downtimes of the hoeing machines. Moreover, different crops might require different share widths.

Hoe shares are generally bolted, riveted or welded onto the share shaft. However, these systems have disadvantages due to time-intensive changing of the shares, shares that are not absolutely firmly attached to the shaft, and wear costs.

The RapidoClip quick-change system was developed to solve these problems associated with different share attachments. RapidoClip is the first and completely tool-free quick-change system for hoe shares on the market. With this system, replacing hoe shares is a breeze and can be implemented in unparalleled record time. At the same time, financial resources are saved by the very low wear costs.

The RapidoClip share system consists of a hoe shaft and a RapidoClip share plate, which are connected with a tongue and groove system. With the RapidoClip system, the hoe share is fastened to the hoe shaft with the RapidoClip spring lever. The spring lever

reliably clamps the hoe share onto the hoe shaft by means of the lever effect and the pivot point milled into the hoe shaft. This share system ensures absolute operational reliability under any conditions, regardless of whether the soil is hard, stony or has a thick organic layer.

To change a hoe share, the RapidoClip spring lever must be pressed towards the share shaft with one hand. The spring lever lock on the share shaft is then released and it can be removed to the side. Then the lever can be removed from the hoe share. The hoe share can be released to the front and taken off. Now the hoe share can be pushed out of the tongue and groove system towards the front, and a new hoe share can be pushed onto the share shaft. Then the hoe share is clamped back onto the share shaft with the RapidoClip spring lever, and secured with the spring lever lock. Thanks to RapidoClip, shares can be changed on the hoeing machine on the field independently, with just a few steps and within a very short time. Hoe shares can therefore be used up to the maximum wear limit, a real bonus for any hoeing machine!

The share shaft was optimised for secure hold in the top spring. It is now rounded on the front side of the shaft for RapidoClip. As a result, the share shaft fit perfectly in the rounded shape of the top spring. Thanks to this perfect fit, secure clamping of the share shaft in the top spring is achieved. Moreover, the share shaft was optimised for RapidoClip, so that this share system can also be used with shallow ridgers on the hoe share without any problems.

The RapidoClip hoe shares feature a very flat cutting angle. As a result, they move much less soil and at the same time, they deposit weeds better on the soil surface so that they can dry out faster.



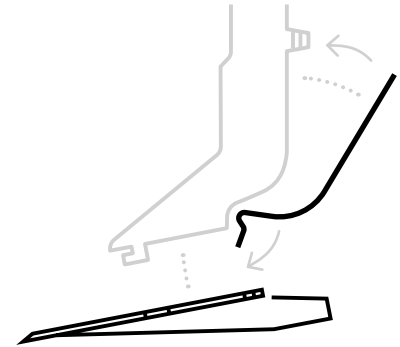
Typically SCHMOTZER

- The RapidoClip system reduces the time and monetary costs to a minimum
- Changing the shares with RapidoClip is accomplished completely without tools
- The share tip is bent downwards, which promotes penetration into the soil
- All hoe shares can be combined with the SCHMOTZER Vibro spring, even in different sizes within a hoeing width



At the same time, thanks to its flat design, the hoe share is subject to less resistance from the ground, so that it can reliably maintain its working depth. To ensure clean cutting of weeds, the RapidoClip hoe shares are made thinner than standard duckfoot shares. Highly automated serial production with high process stability achieves excellent qualities in the material hardness.

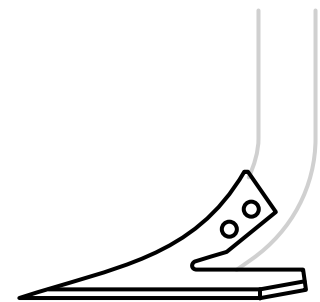
A special feature of the RapidoClip hoe share is the downward-bent tip. This produces a slight point pitch, allowing the hoe shares to penetrate much better into the soil, especially under very hard soil conditions. The RapidoClip hoe shares are available with cutting widths of 140 to 240 mm.



RapidoClip system

Firmly riveted

In addition to the RapidoClip quick-change system, standardised duckfoot shares are also available for SCHMOTZER hoeing machines. They are firmly riveted to the hoe shaft. The riveted duckfoot shares have a steeper pitch and therefore result in stronger mixing of the soil.



Riveted hoe share



The SCHMOTZER Vibro system

Exposing weeds and grasses with the "Vibro effect"





The Vibro share

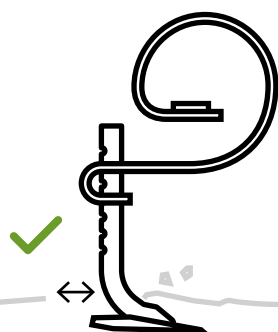
SCHMOTZER was a pioneer not only with hoeing machines - the invention of the Vibro share also comes from Bad Windsheim. They are semi-spring loaded tools, consisting of a spring, the shaft, and the hoe share. Thanks to the "Vibro effect", weeds and grasses are exposed more thoroughly, and shallow and uniform hoeing is possible while protecting the roots and capillary water. The Vibro shares ensure precise maintaining of the working depth and blockage-free field operation.

The thickness and shape of the Vibro spring are designed such that the best penetration angle is automatically set when starting off, without changing the working depth. There is no springback, the springs only produce uniform vibrations.

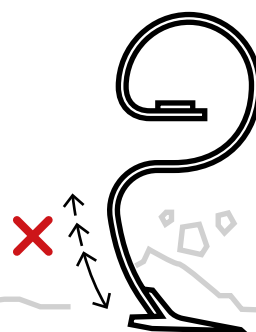
Mode of operation

The Vibro spring enhances the crumbling effect, pulling up of weeds, and also allows individual tool adjustment, e.g. deeper in the tracks and higher on the plant row. Grids with 15 mm increments help with the adjustment. The action of the Vibro shares is more shallow, and is more favourable for capillary water than conventional spring tines. Compared to conventional shares, there is little soil movement. This strongly reduces throwing of soil. The Vibro share enables effective crop management while remaining gentle on the roots, even with large plants. The shallow mode of action, particularly during the last hoeing pass, ensures that dormant weed seeds are not pulled up, which can otherwise cause late weed infestations.

The hoe shaft stands perpendicular to the ground and shakes itself free of weeds thanks to the vibration of the top spring. The right-angled arrangement of the share and shaft ensures that the weeds are optimally carried up to the soil surface to dry out.



Vibro system



Conventional spring tines

Hoe protection discs

Protection against burying

When hoeing, the principle is "as early as possible". As a result, the first hoeing passes are performed already at early crop growth stages. Particularly at these early stages, most crops are very sensitive to being buried with soil. For this reason, SCHMOTZER offers a multitude of different burying protection systems for various crops and row widths. The product range goes from simple ridge protection plates all the way to specialised hoe protection discs.

When working in early crop stages without row protection, only very low working speeds are possible to avoid throwing soil over the hoe shares. In contrast, if hoe protection discs are used, the working speed can be doubled or even tripled. The hoeing machine can then achieve a much higher area efficiency.

Also in combination with the RowSpray band sprayer, hoe protection discs are a sensible addition. With SCHMOTZER, the band sprayers are mounted in front of the hoeing elements. The use of hoe protection discs ensures that soil does not fall into the crop row and onto the spray film. The efficacy of the herbicide is not negatively affected.

RowDisc hoe protection discs

The RowDisc hoe protection discs are installed on the tool carrier directly beside the hoe share that works near the plant. The distance between the RowDisc and the hoe share only needs to be set once. If the hoeing width is changed, only the tool carrier needs to be released and the hoe share and the RowDisc are adjusted in parallel and in one step.

As an option, the RowDisc can be loaded with a 3-stage adjustable spring preload. The hoe protection disc can then either run lightly over the soil or cut into it. Moreover, smoother running of the RowDisc can be achieved on hard or cloddy soils, and therefore optimum protection against burying.

If there is no more risk of burying for the crop plant at later growth stages, the RowDisc can be simply moved into parking position by hand. To do it, it is only lifted until it automatically engages in the parking position. For activation, just lift the RowDisc slightly and pull on the locking lever.

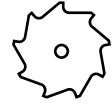
All RowDisc versions are mounted on the same holder and fastened with a bolt. This enables switching between the 3 different RowDisc versions SR, RD and SD. When working with a hoeing machine in different crops, this enables the best possible adaptation to the different requirements.





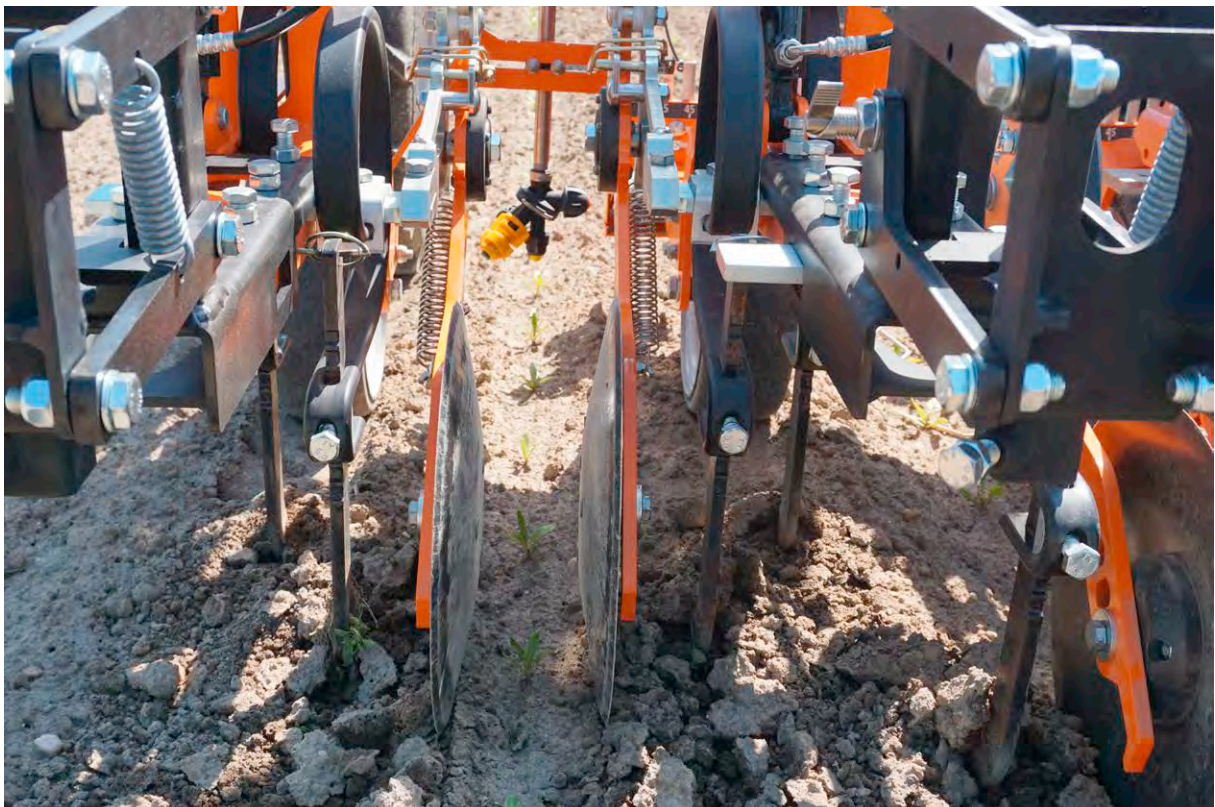
Row Disc SD hoe protection disc

The round RowDisc SD hoe protection disc is chamfered with a sharp edge. It is specially designed for intentional cutting into the soil along the crop row. Depending on the soil type, the cutting depth can be adjusted via the spring preload. Particularly with crusted soils and/or organic material on the surface, RowDisc SD stands out with its sharp cutting edge and ensures absolutely reliable protection against burying the crops even under extreme conditions. The RowDisc SD hoe protection discs leave a sharply defined hoeing strip at the crop row. Therefore, the RowDisc SD is also particularly well suited for use in combination with RowSpray band sprayer equipment.



RowDisc SR hoe protection disc

The RowDisc SR serrated hoe protection disc is particularly well suited for crops with sensitive leaves. It prevents leaf damage thanks to its dull teeth that do not have a cutting effect.



SCHMOTZER hoe protection discs - Overview

Everything you need for burying protection

RowDisc SR: for crops with sensitive leaves

Serrated hoe protection disc

- 400 mm inner diameter, 500 mm outer diameter
- Suitable for KPP
- Mounted on the parallelogram



RowDisc SD: for sensitive crops

Round hoe protection disc

- 317 mm diameter
- Suitable for KPP
- Mounted on the parallelogram
- Cutting effect from the sharp chamfer



HSU: For any application

Round hoe protection disc

- 280 mm diameter
- For KPP for hoeing in narrow row widths
- Concave disc can be adjusted vertically and horizontally
- Mounted on the profile rail



HS 85: For Vibro shares

Round hoe protection disc

- 280 mm diameter
- EKP-M and MPP with Vibro share spring
- Mounted on the profile rail



HS 62: For rigid shares

Round hoe protection disc

- 280 mm diameter
- EKP-S and MPP with rigid shares
- Mounted on the profile rail



Cutting discs

For sharp-edged hoeing strips

Cutting discs can be used as an alternative to the hoe protection discs. They are installed on the front tool carrier. However, when using the cutting discs, we recommend using Rotavator blades instead of the classic share configuration with duckfoot shares.

The cutting discs are particularly well suited for young and small crops. They can be set at a very close distance from the plant row. This results in a very narrow hoeing strip, so that there is no risk of uprooting the crops.

The difference between the cutting disc and the hoe protection disc is in the working effect. The hoe protection disc rolls over the ground. In contrast, the cutting disc actively cuts into the soil. Due to their cutting effect, the cutting discs are particularly suitable for hoeing on fields with high amounts of organic material at the soil surface, e.g. from a previously grown catch crop. Even with hard and thick soil crusts, they ensure a narrow hoeing strip without risk of breaking large pieces of soil crust that can damage the crops.

The cutting angle of the cutting discs relative to the crop row can be adjusted without tools. The greater the set angle, the more intensively the cutting discs remove organic material and soil away from the plant row.

The area cleared by the cutting discs in the soil is ideal for trailing Rotavator blades. The share shafts of the Rotavator blades run through this slit, without creating a flow of soil. The risk of loosening the crop plants is therefore reduced to an absolute minimum.



Typically SCHMOTZER

- For sharply defined hoeing strips with soil crusts and organic material
- Angle adjustment without tools
- Maintenance-free

Finger hoes

Weed control on the rows



Typically SCHMOTZER

Always the right working height

- Independent depth control of the finger hoes with a separate parallelogram
- Hardened and angular-shaped drive fingers and ball bearing-mounted drive plates for active continuous operation
- Adjustable working angle





SCHMOTZER finger hoe

Tillage within the plant row represents one of the biggest challenges for mechanical weed control. The solution from SCHMOTZER: the finger hoe. They work in the plant row, where the hoe shares can't reach. Two finger hoes made of hardened plastic reach through the plant row from both sides. Weeds in the cotyledon or sprouting stage are torn out and buried.

A separate parallelogram ensures precise height guidance of the finger hoe, without affecting the operation of the hoe parallelograms. Utmost care and precision is required, especially when working in the rows.

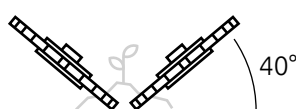
Mounting on a separate star parallelogram

At SCHMOTZER, the finger hoe is attached to an additional spring-loaded star parallelogram, in contrast to the conventional design. This ensures that the tools adapt better to the existing soil contours. A lever effect is ruled out.

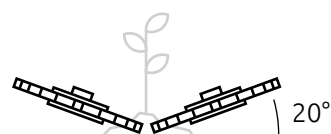
Adjustable degree of aggressiveness

The inclination of SCHMOTZER finger hoe can be adjusted to adapt the aggressiveness of the finger hoes to the size of the crops. For young and sensitive crops, a setting angle of 40° is recommended for the 1st and 2nd hoeing pass. This slows down the circulation speed of the finger hoes, making them work more gently.

For established, taller crops and high weed populations, a setting angle of 20° is recommended for the 2nd, 3rd and, if applicable, 4th hoeing pass. In this case, the circulation speed of the finger hoes is higher. This achieves a more aggressive working effect.



Young or small crops



Large crops



Ridging tools

Light off for grasses and herbs



Shallow ridger

For light ridging, SCHMOTZER offers the well-known shallow ridgers. They guide the flow of soil from a hoe share towards the crop row, so that they are heaped up and smaller weeds are buried. The shallow ridgers are bolted on the side of the hoe share shaft. As a result, changing the hoe shares without tools is still possible with the Rapi-doClip share system. Depending on the row width and number of hoe shares in the parallelogram, single shallow ridgers can be installed to guide the soil flow to the left or right or double shallow ridgers for soil flow to the left and right. The intensity of the heaping effect can be adjusted by means of a slot on the shallow ridger. The closer the shallow ridger is set towards the hoe share, the more soil is moved and the stronger the heaping effect. In addition to adjusting the shallow ridger, the heaping effect is also affected by the forward speed. With these two parameters, the intensity of the heaping can be finely adjusted, so that it can be optimally adapted to different soil and crop conditions. If the shallow ridgers are not needed during hoeing operation, they are simply swivelled into a parking position.



Ridging discs

SCHMOTZER ridging discs adapt to the crop row and the soil conditions. Here, the soil is piled up on the plant row. This takes away the light required by the weeds to grow. For example, soil is heaped up on the plants for the cultivation of field beans and maize. This design is particularly suitable for stony soils with a high proportion of organic material.



Share ridgers

With the share ridgers, soil can be precisely heaped up for ridge crops. They combine hoe shares and shallow ridgers for greater working depths. SCHMOTZER offers various ridging tools to pile up the soil on the rows. Particularly for legumes, it provides additional warmth and growth stimulus, as they prefer intentional burying. For the cultivation of legumes, the SCHMOTZER ridging discs can even completely bury the row. For example, soya plants are capable of growing free within a short time, while weeds and grasses remain buried.



Harrow



Exposure of grasses and roots

Trailing harrow

By using the tined weeder, grasses and weed roots are exposed, freed from soil and they dry out faster at the surface. SCHMOTZER offers the trailing harrow as a trailing tool on the parallelogram. It can also be used to assist with working in the area within the crop row not hoed. Another advantage is the additional crumbling effect that is achieved by the harrow tines. Since the height of the harrow can be adjusted, its intensity can be changed and adjusted for any soil type.

Roller harrow

The roller harrow behind the hoe unit helps to break up soil crusts in each plant row and significantly improves the water and air balance in the soil. This mobilises additional nutrients and promotes the tillering of the plants. Thanks to the rotating movement, weeds are also uprooted and dry up.



Typically SCHMOTZER

The harrow systems are available for the single and combined parallelogram (EKP and KPP) up to a row spacing of 80 cm. The harrow can also be used in combination with the finger hoe.



Row guidance systems

Comfort for the driver, precision at work

Mechanical weed control in row crops calls for maximum precision. Incorrect adjustment of the implement as well as carelessness on the part of the driver can cause serious damage to the crops. Row guidance systems were developed to make it easier on the operator and the implement. They can be manual, mechanical or electronic, and ensure that the implement optimally stays on track.

When is a row guidance system recommended?

Row guidance systems are particularly useful when large areas are being cultivated. When the driver has to be highly concentrated a long time, they tire more rapidly at their work. In this case, a row guidance system provides relief and with electronic control, it fully assumes the steering of the implement in the rows. As a result, not only is the driver considerably relieved and the crop protected, it often even enables higher forward speeds as well, which can increase the area efficiency. These systems are particularly helpful on sloping fields. Here, too, can driving errors and slopes be automatically compensated by the implement.



Manual steering

With manual steering, another person can sit at the rear on the implement. Thanks to a steering mechanism, they can concentrate on steering in the row without distractions. This additional person is particularly beneficial in young crops or with strong weed populations.



Electronic steering

Cameras fully assume the viewing of the crop. They have several ways to distinguish weeds from the crop to achieve optimal results, e.g. based on the size, colour or arrangement, and detect where the hoeing machine must be steered. Row sensors ensure reliable control after row closure, e.g. in maize.



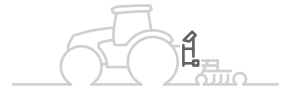
Mechanical stabilisation

In this case, two stabilisation discs are used. They are spring-loaded and are automatically guided in the row, essentially following the tractor and stabilising the course of the hoe. Due to the rigid arrangement, they can optimally compensate for slight steering errors. Physical drift, e.g. on very light and free-flowing soils, is then no longer a problem.



Sliding frame

Regardless of who or what takes care of the steering, there has to be a unit that takes care of counter-steering. A sliding frame is used for this, which implements the corresponding signals with linear or parallel movement.



Typically SCHMOTZER

Row guidance system = Control unit + slide unit



Row guidance systems

Control unit



SCHMOTZER HORUS camera

The system looks for plants that form a straight line with their arrangement (row spacing, plant width, and plant height). The 3D mode enables the detection of plant rows based on differences in height. Thanks to the colour selection, the system can detect bluish-green, yellowish-green, and red plants in addition to green plants. The measured values are transmitted to the control unit via CAN bus. The proportional valve moves the sliding frame depending on the forward speed. All of the parameters are displayed and set on the terminal.

The driver can also watch the rows in a video image, and react to deviations. The optional lighting makes it possible to also work at night or in the early morning. This system enables the recording of up to 5 rows in parallel, and thus achieves maximum operational reliability, even if there are no plants in a row due to lacking emergence or similar. The proportional valve is controlled dynamically, enabling gentle and uniform operation of the sliding frame.



Row sensor

The HORUS system can be supplemented with a row sensor. It has two feeler rods, which sense the crop row. It is particularly suitable for crops that develop a stalk, such as maize or sunflowers. For reliable control, the resistance of the plants is needed to deflect the feeler rod accordingly. The row sensor is especially suitable for late hoeing passes when the rows are closing or just before, when late weed infestations should be controlled or nurse crops should be seeded. If hoeing takes place with side wind, the row sensor ensures precise guidance of the hoeing machine along the plant row. In this case, the camera system would be fooled by the slanted crop and the plant row would be detected in the wrong position. But if the row sensor is active, it has priority over the signal from the camera.

Manual steering



The steering wheel with oil motor is connected to the hydraulic control circuit. It is very easy for the steering person to keep the hoeing machine on track. They can steer manually all day long while sitting in a comfortable seat. This special equipment is particularly interesting when special crops are to be hoed at a very early growth stage or with strong weed populations.

- Special equipment as a safety back-up
- Use in special crops
- Hoeing with missing crops in the row
- Comfortable working conditions in the steering seat thanks to integrated beverage and parasol holders

Row guidance systems



Sliding frame

VR 2

Linear sliding frame

With the VR 2 linear sliding frame, SCHMOTZER offers the perfect all-rounder for all hoeing operations, even under the most difficult hoeing conditions, e.g. on slopes.

A unique feature of the VR 2 is its extremely compact design. The distance from the lower link coupling point of the tractor to the coupling point on the hoeing machine is only 470 mm. The very compact construction massively reduces the centre of gravity distance of the hoeing machine to the tractor. As a result, the machine has a much lower lever effect on the tractor, which produces multiple positive effects. For example, the required lifting force of the tractor is significantly reduced as well as the required front ballast. Especially when hoeing on slopes, the small centre of gravity distance provides more operational reliability and a lower risk of drifting of the tractor. For operation on side slopes, the sliding frame can be additionally equipped with one or two stabilisation discs. They can be installed flexibly on the frame depending on the crop row width. Thanks to the stabilisation discs, the lateral forces produced by the sliding frame when it is moved are dissipated into the soil, so that the tractor still runs reliably in its track.

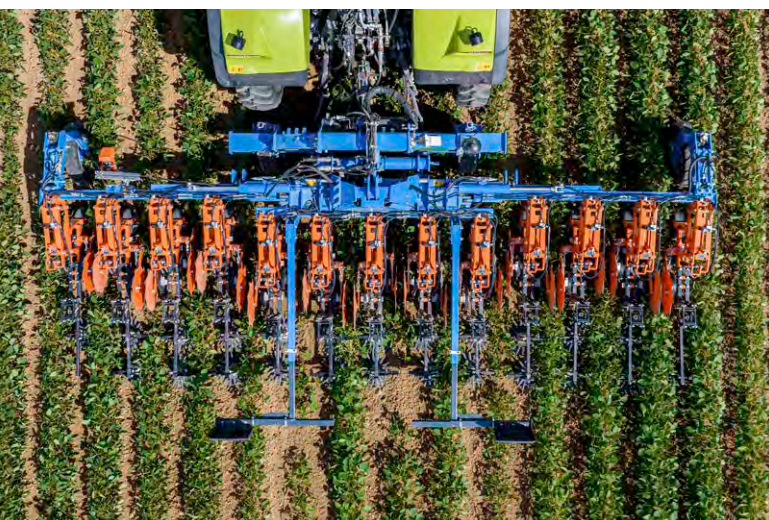
To ensure that the VR 2 linear sliding frame always runs precisely between the rows, it was equipped with an extra large sliding path of a total of 600 mm. Particularly with crooked plant rows and when working on slopes,

the displacement of 300 mm to the left and right ensures that the hoe elements are always guided reliably between the crop rows, without uprooting or damaging the plants.

For maximum running stability and the best possible ground adaptation of the hoeing machine, support wheels are available in different sizes for the VR 2. The support wheels can be infinitely adjusted to track widths of 1.50 to 2.25 m for individual operation in various row widths. With an optional frame extension set, even track widths of up to 3 m are possible. For this reason, the VR 2 linear sliding frame is also ideal for operations in crops growing on beds.

A key element of the VR 2 is the integrated central oil circulation. It is used to supply the hydraulic functions for camera control as well as Section Control single parallelogram lift-out with the required quantity of oil. Optionally, the oil can be supplied from the tractor via load sensing or through a single-acting control unit with pressureless return flow. The advantage of integrated oil circulation is particularly noticeable on fully equipped hoeing machines. With this system, the requirements for the oil supply and oil quantity from the tractor are much lower.

- Overall depth of 470 mm
- 600 mm lateral displacement (+/- 300 mm)
- Support wheels 195/55 R10 or 225/55 R12
- Flexible track widths: 1.50 m – 2.25 m
- Track widths up to 3 m with extension set
- Quick-change system for different hoe sets
- Integrated central oil circulation
- Lubricating bar for the slide unit
- Hydraulic system and electronics protected behind covers
- For mounted implements up to 2.7 t

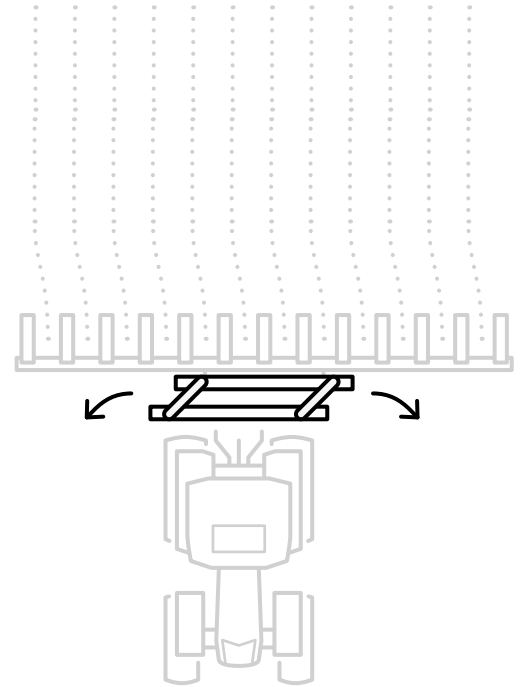


AV 5

Parallel sliding frame

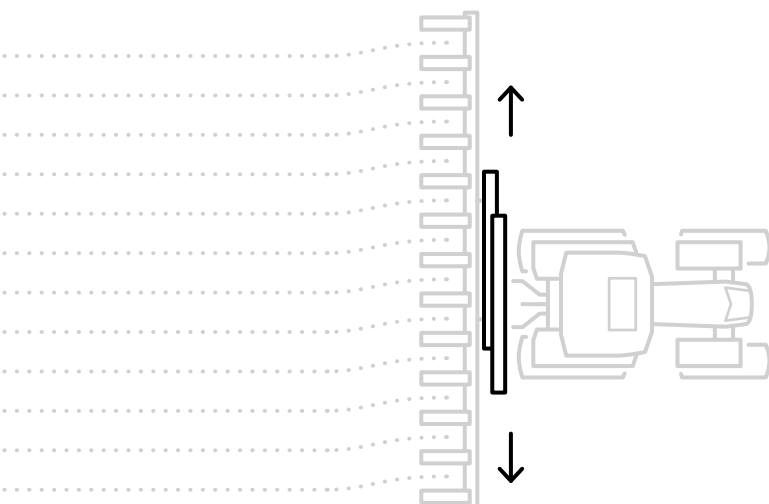
The AV 5 parallel sliding frame offers a sliding path of 64 cm (+/- 32 cm). The tractor can be additionally stabilised with coulter discs when working on slopes. Thanks to the unique design with parallelogram, lateral forces on the tractor rear axle are reduced to a minimum. The parallelogram helps to achieve very sensitive alignment in the plant row. Only one steering system is required for several hoe sets and row widths. A hydraulic cylinder acts on the centre of the lever arm of the AV5, and thus shifts the hoeing machine. In doing so, the row adaptation is achieved with half the hydraulic force compared to conventional linear sliding.

- Sensitive parallel sliding via double frame
- For working widths up to 9 m
- Sideshift 64 cm (+/- 32 cm)
- Minimal strain on the tractor
- Quick changing of implements on the sliding frame thanks to latch couplings and detachable hydraulic connections (optional)
- Second steering person and/or camera steering



AV 4

Linear sliding frame



By sliding on one level, the AV 4 is particularly suited for smaller working widths and tractors as well as with manual control.

- Linear sliding
- Sideshift 40 cm (+/- 20 cm)
- Compact frame layout
- Quick changing of implements on the sliding frame thanks to latch couplings and detachable hydraulic connections (optional)
- Camera steering and/or manual steering, individually or combined

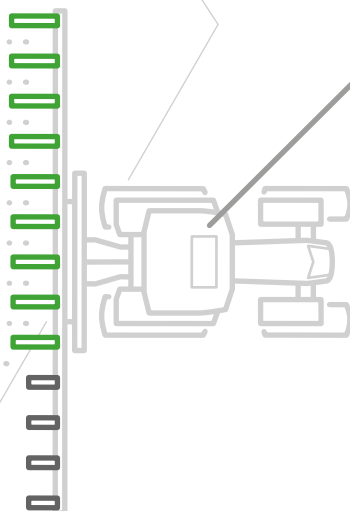
Section control

Single parallelogram lift-out

Hydraulic lift-out

With the use of Section Control automatic part-width section control, the hoeing units can be hydraulically individually lifted and lowered. On fields that are tapered at the headlands or on border strips, the parallelograms can be lifted individually. Damage to the crops is thus prevented. They are controlled either manually through the terminal or with GPS. In doing so, the working position is determined and the recording is stop-

ped at the headlands. Section Control can either be operated using an existing ISOBUS-compatible control terminal or the Amatron 4 control terminal. In doing so, part-width section control takes place through the ISOBUS communication. By using Section Control, overlaps and gaps can be minimised. The implement control takes care of documenting the working time and the area. This relieves the driver's workload.



AmaTron 4

With the ISOBUS-compatible AmaTron 4, AMAZONE and SCHMOTZER offer a particularly user-friendly control terminal for the hoeing machine. The terminal has an 8-inch touch display and is equipped with a serial interface for the GPS receiver, a camera input as well as inputs for the simulated tractor ECU. In addition to the sole implement operation, it controls the GPS switch automatic part-width section control (Section Control). Moreover, the AmaTron 4 can be used for documentation and job management. Data exchange via agrirouter is also possible. All applications are already pre-installed and can be initially tested free of charge for 50 hours.



Application systems

GreenDrill – Seeding and fertilising technology



The GreenDrill is suitable for spreading nurse crops, fine seeds, and micropellets. The substrate is distributed by baffle plates behind the hoe units. The seed hopper has a volume of 300 l and is easy to access with steps. In the metering area underneath the seed hopper, there is a seeding shaft that is equipped with normal or fine seed metering wheels, depending on the seed type and spread rates. The seeding shaft is driven electrically, and the fan is driven electrically or hydraulically. Control computer 5.2 is available to control the implement. It can be used to switch the seeding shaft and the fan.

A selection menu is also available to support calibration and to display the forward speed, the worked area, and working hours. The seeding shaft speed automatically adapts to the changing forward speeds as soon as the control computer is connected to the 7-pin tractor signal socket.

Fan selection

To select the right fan, the working width as well as the size and the weight of the seed must be determined. The boundary conditions to be expected, such as dust or straw, are just as important.

Nurse crops in field crops

Weather conditions like those we had in the past few years emphasise the value of nurse crops. Full soil coverage reduces the risk of erosion in case of heavy rain events. Under wet harvesting conditions (such as in the fall), they enable safe trafficability of the fields.

Nurse crops are also beneficial under dry condition, since they shade the soil and therefore conserve moisture in the crops. Crops such as maize, cereals, legumes, sunflowers, etc. are particularly well-suited for the seeding of nurse crops. With the cultivation of catch crops, the nurse crops ensure rapid soil coverage after harvest and therefore suppresses weeds faster than conventionally seeded catch crops. As a side benefit of nurse crops, the nitrogen and humus supply is optimised and microbial activity is increased.

The new regulations of the Fertiliser Ordinance present great challenges for agriculture (particularly in the red zones). Nurse crops make it easier to comply with the requirements. As a nitrogen producer, they compensate for N deficits and stabilise the nutrient balance in a natural way.





RowSpray band sprayer equipment

SCHMOTZER & AMAZONE – Strong on their own. Unbeatable as a team.

RowSpray

SCHMOTZER and AMAZONE take advantage of their respective strengths in the RowSpray combination. Here, a Venterra or Select hoeing machine from SCHMOTZER represents the hoeing technology part of the combination, and the spraying technology comes from AMAZONE. Both systems are completely integrated into each other. There is still the option of using both systems independently for different application areas.

Compared to conventional, purely chemical weed control, this combination of mechanical and chemical technology can offer spray agent savings of up to 85%.

This not only reduces costs, but is also gaining importance in these times of social and political rethinking, where new ways need to be found even in conventional agriculture.



The active substance or leaf fertiliser is precisely applied with band application over the individual crop rows. Between the rows, in contrast, the Vibro share eliminates weeds mechanically and without chemical inputs, and at the same time, it breaks the capillarity. This merging of the systems saves labour and spray agent costs, and protects the environment.

The working width of the RowSpray combination depends on the seeding width and is available for the Venterra and Select hoeing machines.

SectionControl is also available for the band sprayer. The part-width sections are actuated via a part-width section valve chest that is installed on the hoeing machine.

On the SCHMOTZER hoeing machine, the nozzle arms are at the height of the guide wheels of the individual parallelograms. As a result, they apply in front of the hoeing elements and therefore prevent bonding of the active substance and dust before the active substance reaches the plant.



RowSpray band sprayer equipment

FT-P front tank 1502

The AMAZONE front tank FT-P 1502 is a completely autonomous front tank with ISOBUS control and a hydraulically driven pump. It complies with the same standards as a classic field sprayer, except that the FT-P does not have a sprayer boom, rather the "sprayer boom" is integrated in the hoeing machine.

With the FT-P's nominal volume of 1500 l in combination with the RowSpray band sprayer equipment and its potential product savings of up to 85 %, considerable areas can be treated with one tank filling.

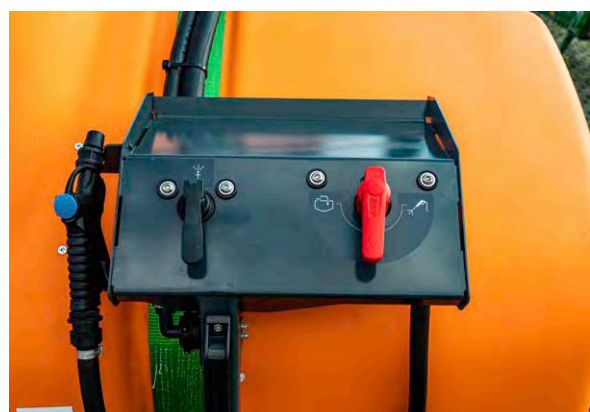
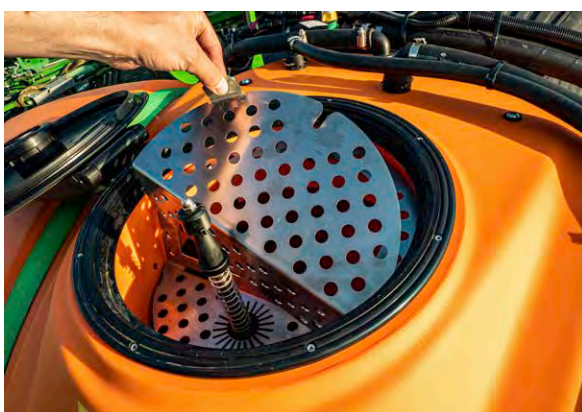
The front tank is conveniently filled via the tank dome with integrated induction bowl. The control panel for operating the flushing procedure is easily accessible. Moreover, a canister cleaning nozzle is also installed in the induction bowl, so that product canisters can be optimally cleaned. For more convenience and work safety, a spray water- and dust-tight storage compartment is installed as a standard in the front tank to store protective clothing, and there is also a hand wash tank with soap dispenser.

For operation, all taps are grouped centrally on one side in a logical and intuitive manner. These are used to perform procedures such as internal cleaning of the spray liquid tank.

The FT-P is equipped with a piston diaphragm pump with a delivery capacity of 180 l/min. It can be used to achieve application rates of 3 l/min to 100 l/min with working pressure of 2.0 bar to 8.0 bar.

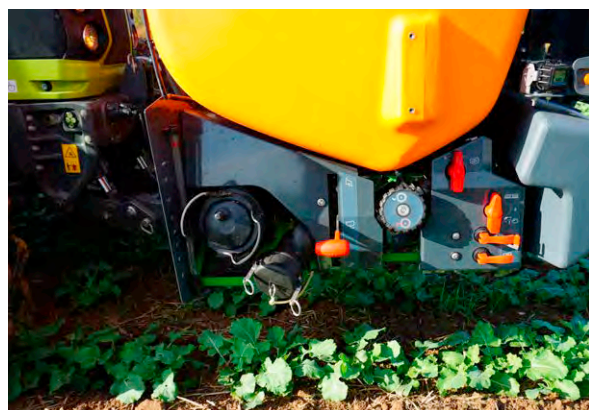
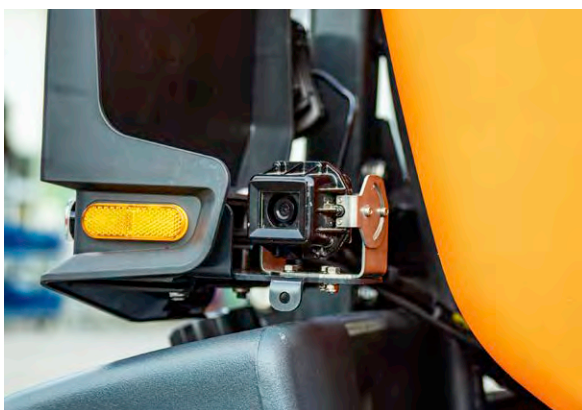
If the hoeing machine is also equipped with ISOBUS, the ISOBUS lines from the front tank and the hoeing machine are grouped at an interface in the hoeing machine. As a result, the tractor still only needs one ISOBUS socket at the rear. We recommend using the AmaTron 4 terminal to operate the front tank and the hoeing machine. It enables operation of both ISOBUS functions on one control terminal.

But the FT-P also impresses with lots of practical details when it comes to road transport. The transport height was kept as low as possible to give the driver the best possible view. Optimised ride comfort is ensured by designing the centre of gravity of the front tank as close to the tractor as possible and the baffle plates integrated in the spray liquid tank. Moreover, the optional certified camera system provides even more safety on the road.





Type	FT-P 1502
Nominal volume	1500 l
Actual volume	1660 l
Flushing water tank	180 l
Pump flow rate	180 l/min
Pump drive, hydraulic	35 l/min
Tare weight	500 kg (+ 340 kg additional ballast)



Row application of fertiliser

Combination of weed control and fertilisation

Another equipment option for SCHMOTZER hoeing machines in the area of application systems is row fertilisation. On the one hand, this system enables effective fertilisation of the crop plants with simultaneous weed control or also spreading of seeds, e.g. for nurse crops.

With this system, the expertise of AMAZONE and SCHMOTZER are optimally combined, so that we can jointly offer a well-rounded system.

For high area efficiency, mineral fertiliser, granules or seed is carried in the FTender front-mounted hopper from AMAZONE. In doing so, there is a choice between two different front-mounted hoppers. On the one hand, the FTender 1600 with a hopper volume of 1,600 l, and on the other, the FTender 2000 with a hopper volume of 2,200 l. The very compact design of the FTender offers a good view to the front, despite the large hopper volume. The optional camera system provides more safety in road traffic, giving the driver a view on intersecting road traffic. Thanks to the optional ballast weights, the front-mounted hopper can be additionally ballasted with up to 900 kg.

The front-mounted hopper is comfortably and intuitively operated via ISOBUS. The FTender can be easily and quickly filled via the large hopper opening. Alternatively, a filling auger is also available for filling. The fertiliser or seed is metered by the electrically driven metering unit underneath the seed hopper. The metering unit is easy to access and enables quick and convenient changing of the metering rollers. Different metering rollers are available for different fertilisers and seed types. The electrically driven metering unit enables easy adjustment of the spread rate from the tractor cab, pre-metering in field corners and calibration at the touch of a button. Alternatively, the metering unit can be fully automatically controlled via application maps.

After metering, the fertiliser or seed is pneumatically conveyed to the mounted implement via the conveyor section. Thanks to the quick-release fastener, coupling and uncoupling is quick and convenient. As a result, the FTender can also be rapidly used for other implement combinations, e.g. with an AMAZONE Precea precision airplanter, for efficient utilisation.





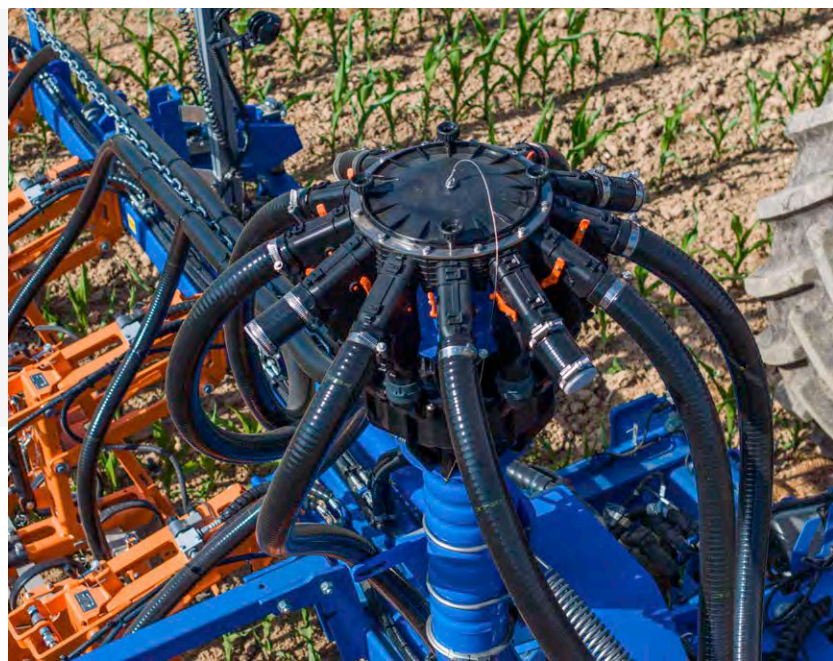
On the hoeing machine, the fertiliser or seed is spread to the individual plant rows through the distribution tower. From here, the spreading material reaches the individual rows through hoses. The distribution can be configured according to the customer's requirements. For example, fertiliser can be deposited in a strip directly beside the crop row or also between two crop rows. Moreover, there is the option of spreading fertiliser or seed broadly between each plant row via a baffle plate. Thanks to various tool combinations in the hoeing machine, fertiliser can be covered with soil by ridging discs or seed can be slightly incorporated with a harrow.

Moreover, there is also the option of combining multiple application systems on one hoeing machine. For example, a SCHMOTZER hoeing machine can be simultaneously equipped with RowSpray band sprayer equipment and row fertilising equipment. It is then possible, for example, to perform band spraying with the first hoeing pass. With the second and/or third hoeing pass, late fertilisation can be applied via the row fertilising equipment or a nurse crop can be spread.



Typically SCHMOTZER

- Precise fertiliser application on the row
- Precise distribution of seed for nurse crops
- Effective with large hopper sizes
- Efficient use of mineral fertilisers

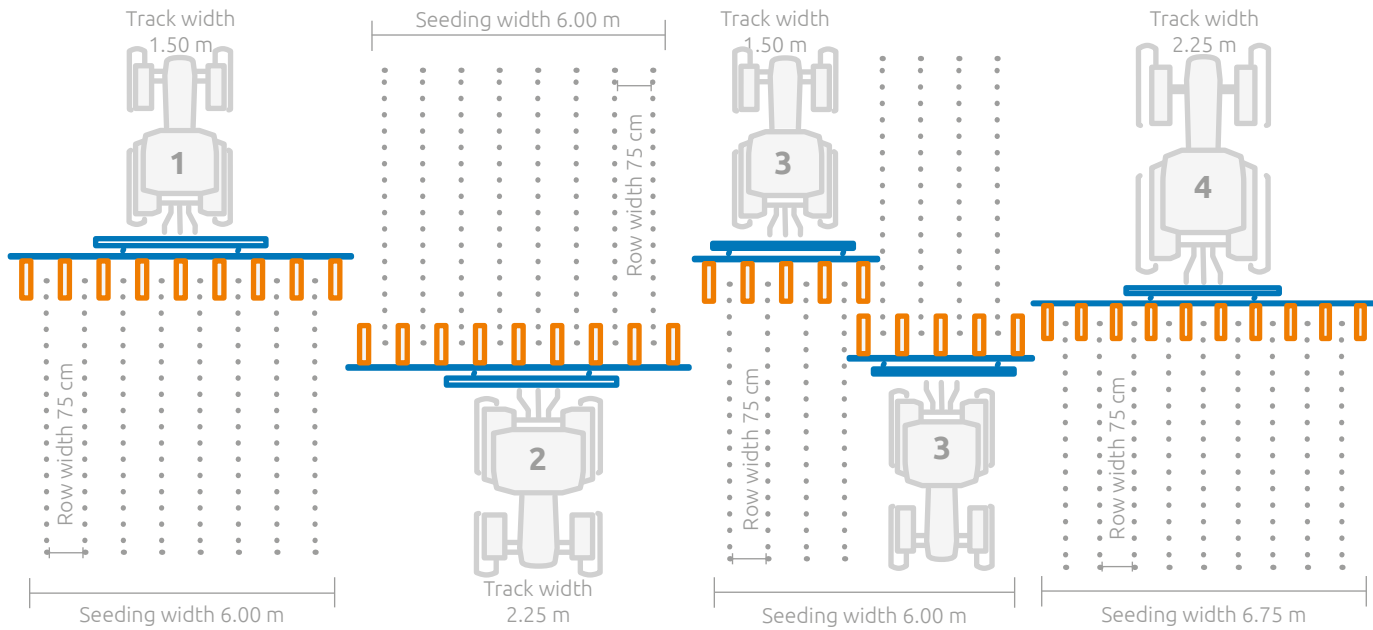


Track widths

Common examples and the fitting hoeing configurations

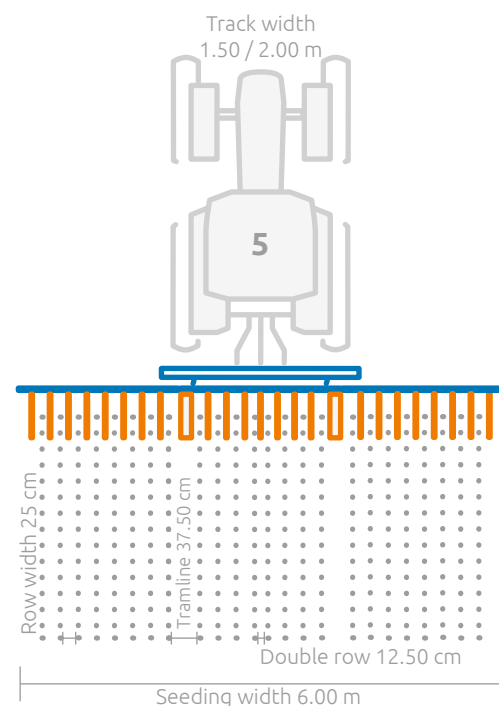
75 cm row spacing

The following figures show how different track widths (TW) and working widths can be implemented for a row spacing of 75 cm. Depending on the tractor track width, the hoeing machine is configured symmetrically (examples 1 and 4) or asymmetrically (example 2). For large seeding widths, it is also possible to use a hoeing machine with half the seeding width (example 3)



25 cm row spacing

In addition to the classic hoed crops such as maize and turnips, mechanical weeding is also possible in cereals or legumes. It is important to seed with a double row width (25 or 30 cm). The example below (5) shows seeding with double seed row spacing. This means that every second seeding coulter was closed on a seed drill with 12.5 cm row spacing. To ensure that a row spacing of 12.5 cm and a tramline of 37.5 cm is also produced in the next bout, a double row (12.5 cm) is seed at the centre of the tractor. This division with a double row and tramline width results in a track width of 1.50 or 2.00 m. The hoeing machine is configured symmetrically.

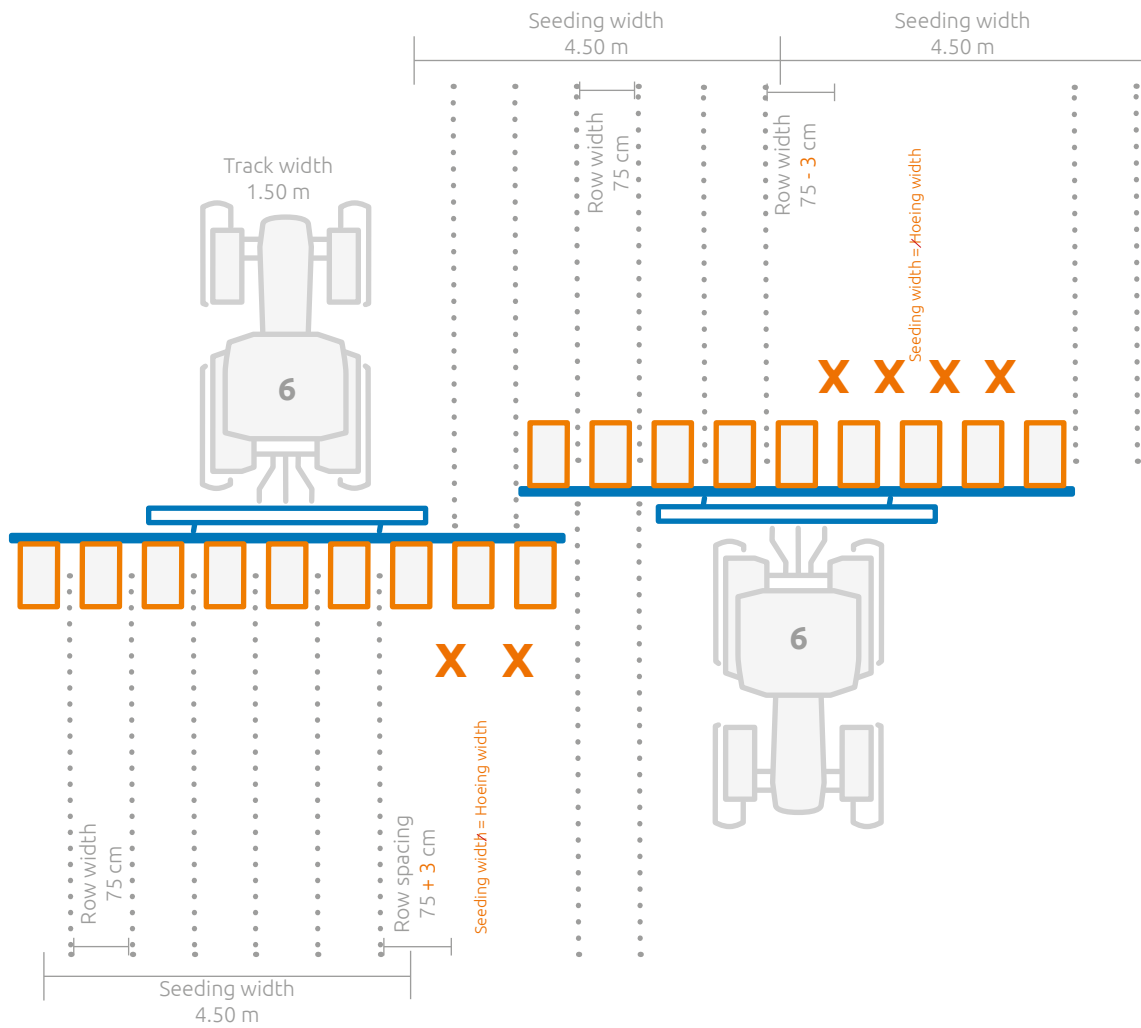


Why hoeing cannot be wider despite seeding with RTK

75 cm row spacing

The figure (example 6) illustrates the following situation: seeding is performed with a 6-row seed drill with a row spacing of 75 cm and an RTK-guided tractor.

An attempt to work in a crop with an 8-row hoeing machine is shown below. It can be seen that, due to the imprecision of the RTK correction signal with a deviation of up to +/- 3 cm, the hoeing machine cannot work with a greater width than the seed drill. In every subsequent bout, crop rows would be damaged or uprooted due to the offset. As a result, even when seeding with RTK precision, hoeing cannot be wider than seeding.



Row width	24 x 25 cm	12 x 45 cm	12 x 50 cm	8 x 75 cm	9 x 75 cm
Track width					
1.50 m	✓		✓*	✓	✓*
1.80 m		✓			
2.00 m	✓		✓		
2.25 m		✓*		✓*	✓

* Asymmetrical

Perfect results

This is how a SCHMOTZER hoeing machine achieves top performance



1. Good preliminary work is half the battle

Homogeneous incorporation and chopping of crop residues
Targeted control of weeds, grasses and volunteer grain

2. Precise seed placement

Level and reconsolidated seedbed
Tolerance-free maintaining of the defined row spacing: seeding width = hoeing width

3. Minimise sources of error

The track width must be correct
Minimise mechanical play on the tractor
Locking the lower links

4. Right tools, optimum results

Tools adapted to the crop
Adapted row protection systems

5. Ready for take-off – Adjusting the implement

Adjust the working depth
Align the tilt of the hoe
Adjust the distance from the hoe shares to the crop row

6. In coordination with Petrus

Dry soil conditions in the morning, maximum success in the afternoon

7. Just in time

Weeds and grasses that are too strongly established are difficult to eliminate
Timeliness guarantees high control success

8. Keeping an eye on the crop

Also check the row spacings to the connecting rows
Ensure sufficient root development of the crops when using additional tools ◻

9. Keep a sharp eye on the field

Check for emergence and double seeds
Adapt the row guidance systems to the size of the crop plants

→ Celebrate hoeing success
and harvest greater yields!



Are you hoeing yet?

No?

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Dealer directory: www.schmotzer-ht.de/vertrieb



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