





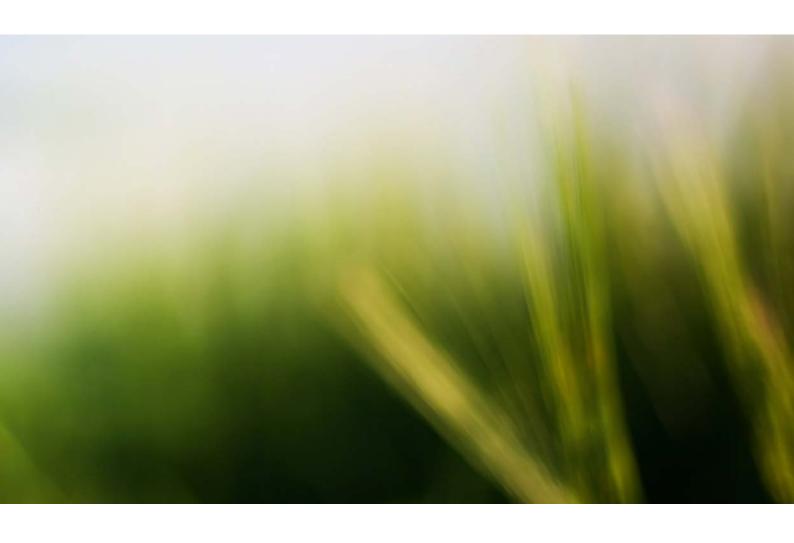
Intelligent machines for global challenges.

WINTERSTEIGER has established itself at the top of a niche market which will continue to gain significance in future. Agronomists and plant breeders today face the challenge of introducing new developments to make a decisive contribution towards sustainable food and energy supplies for the world.

WINTERSTEIGER supplies the technology needed to do this. Our single row seeders have been specially developed for precise sowing of seed from a single ear and/or from single plants.

This ensures a perfect framework for the research, breeding, testing and propagation of field crops, including specialty crops, at the highest standards.

Read the following pages to discover in detail what the global market leader offers you.



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Rowseed Single row seeders.

Our WINTERSTEIGER single row seeders were specially developed for precise sowing of seed from a single ear and/or from single plants and thus support comparisons between ears or their progeny.

A variety of distribution systems allows for mix-free distribution of the seeds of a single ear within a row. The modular system with its many options allows you to customize the machine for many different applications.

The XL and XXL frame variants also allow for a combination with a belted cone and thus drill seeding.



Your benefits summed up:

- Easy and safe operations thanks to a clear-cut lavout
- Easy track width and row spacing adjustment
- Wide range of applications thanks to a variety of feeding options such as magazine systems, central seed
- distributor, single funnel and the combination with belted cone for drill seeding
- Seed placement for a variety of soil conditions thanks to a selection of opener systems
- The XXL frame allows both for direct seeding through the use o heavy direct openers and for a combination with pre-cutters and fertilizer openers



Basic frame.

Each WINTERSTEIGER single row seeder is characterized by a stable frame and easy adjustment of the track width and row spacing. The choice of basic frame influences the track width, transport dimensions and weight of the machine. We recommend the XXL frame for direct sowing.

Rowseed S



Attachment	Track	Transport width	Weight
Tractor mounted 3-point	1250 – 1750 mm (49" – 68")	2000 mm (79")	Starts at 400 kg (880 lbs)

Rowseed XL



Attachment	Track	Transport width	Weight
Tractor mounted 3-point	1250 - 1800 mm (49" - 70") 1250 - 2100 mm (49" - 83") 1250 - 2600 mm (49" - 102")	2540 mm (100") 2780 mm (110") 3340 mm (132")	Starts at 600 kg (1300 lbs)



Rowseed TC

The basic Rowseed TC machine supports the use of replaceable frames for the following applications:

- Precision spaced planter Monoseed TC
- Seeding system Plotseed TC
- Plot sprayer
- Plot fertilizer spreader

Rowseed XXL



Attachment	Track	Transport width	Weight
Tractor mounted 3-point	1250 – 1900 mm (49" – 75")	2550 mm (100")	Starts at 1500 kg (3300 lbs)



Attachment	Track	Transport width	Weight
Self propelled	1250 - 1850 mm (49" - 73") 1600 - 2000 mm (63" - 79")	2200 mm (87")	Starts at 1150 kg (2500 lbs)

Feed system.

The distribution system is fed by a filling funnel, a rotary distributor, a predistributor, or a magazine system.

Manual feeding via individual filling funnels.

One filling funnel exists for each row and is lifted by the GSC control unit.

Rotary distributor.

The electrically driven rotary distributor distributes the seed evenly across the sowing rows.

Central seed distributor.

1 to 3 central seed distributors can simultaneously feed seeds to multiple belted cones.

6 single funnels in combination with rotary distributors



Central seed distributor

Automatic feeding via magazine system.

Prior to planting seeds are filled into magazines. Depending on your needs there are 4, 6 and 12 cell magazines available, each cell representing 1 row. 10 magazines are loaded on to a plate. During planting the plates with the magazines are loaded on the planter without interrupting the planting process. In combination with the electronic measuring wheel the seeds are fed automatically into the belt cones. The empty magazines are discharged via a chute into a collecting container.



Magazine system



Distribution systems.

Belted cones for single row sowing.

2 to 6 small belted cones with a diameter of 120 or 195 mm are located adjacently (1 belted cone per row).

Belted cone for drill seeding.

In addition to single row feeding with a magazine system or single funnel, a belted cone (Ø 290 mm) can be installed for drill seeding. This means that the machine can be used both for single row sowing and for plot seeding.



Belted cones

Slope compensation.

Slope compensation ensures even distribution of seed in the belted cone and distributor housing despite sloping ground. If you are sowing on a flat surface, you can work without slope compensation.



Magazine system in combination with belted cone for drill seeding



Global Seed Control (GSC) control unit.

Global Seed Control (GSC) is a perfect solution for the WINTERSTEIGER single row seeders and offers the highest efficiency and precision in planting single rows.

The control unit is characterized by the following features:

Terminal:

- Easy controls via function keys
- Clear, high-contrast display

Setting options:

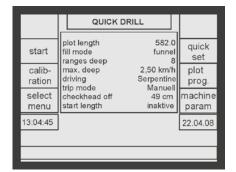
- User menu language setting
- Easy setting of different plot parameters, such as the plot length, cycle length, selected speed, start length, drive mode, and number of plots per trip
- Distribution system adjustment: selection of distribution system (e.g. belted cone, magazine, etc.) and setting of filling times (e.g. funnel stroke time, seed drop time)

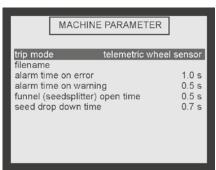
Display:

- Displays the drive train settings required for the selected plot parameters
- Monitoring of all critical functions and malfunction cause display. In plot drilling, this means power monitoring of the rotary distributor so that feeding or the funnel stroke is blocked in case of a malfunction. In case of single row seeding, the magazine feed drives are monitored, and a warning is issued for empty magazines.



Global Seed Control (GSC) unit





Setting the plot parameters

Travel measuring system via measuring wheel.

The measuring wheel greatly facilitates sowing since there is no need for field markers; at the same time, it improves efficiency and precision. The GSC provides the following functions in combination with the measuring wheel:

- The sowing cycle is triggered by a signal from the measuring wheel
- A warning signal occurs in case of excessive speed



Measuring wheel

Valuable grain deserves careful sowing.



Opener systems.

The following opener systems are available for seed drilling:

For prepared soils:



ISARIA shoe opener, row spacing as of 8 cm (3.2")



NODET shoe opener, row spacing as of $8.5\ cm\ (3.3")$



ACCORD CX single disk opener, row spacing as of 9.5 cm (3.8")



LEMKEN double disk opener, row spacing as of 12.5 cm (4.9")

For direct sowing:



ACRA PLANT double disk opener, row spacing as of 19 cm (7.5")



GREAT PLAINS double disk opener, row spacing as of 15 cm (6")



SUNFLOWER double disk opener



HORWOOD BAGSHAW tyne opener

Other opener systems can be implemented on request.

Accessories.

The following options are available depending on the basic frame:







Microgranulate spreader



Bulk seed sowing



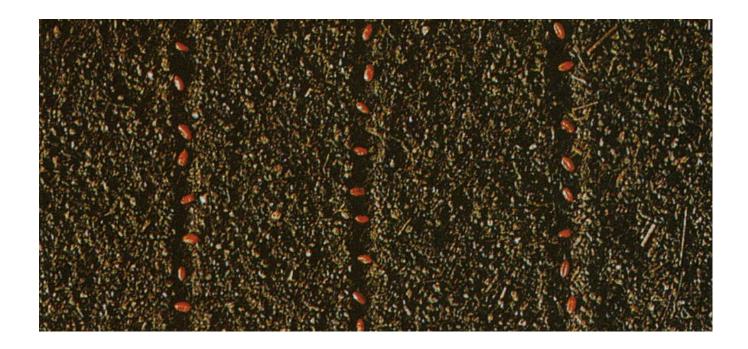
Drillbox



Spring tine harrow

- Anti-static filling funnels for grass and fine seeds
- Sensors for seed monitoring
- Wind and rain protection cabin
- Platform with safety rail
- Track marking

- Track loosener
- Measuring wheel
- Cable trip system



Figures. Data. Facts.

	Rowseed S	Rowseed XL	Rowseed XXL	Rowseed TC
	nowseed 5	nowseed AL	nowseed AAL	
Engine		-		Kubota diesel engine: 3 cylinders, 1000 ccm, 27 HP (20 kW)
Attachment options	3	d-point hydraulic system on tracto	or	_
Track/transport width	1250 – 1750 mm / 2000 mm (49" – 68" / 79")	1250 - 1800 mm / 2540 mm (49" - 70" / 100") 1250 - 2100 mm / 2780 mm (49" - 83" / 110") 1250 - 2600 mm / 3340 mm (49" - 102" / 132")	1250 - 1900 mm / 2550 mm (49" - 75" / 100")	1250 - 1850 mm / 2200 (49" - 73" / 87") 1600 - 2000 mm / 2200 (63" - 79" / 87")
Row numbers	2 - 6 rows	2 - 6 rows	2 – 8 rows	2 - 6 rows
Tires	5.00-15AS	5.00-15AS	7.60-15 Impl. R-8 PR	Front: 6.50-80/12 or 29x12.0-15 Rear: 6.00-16 or 18x9.50-8
Multi-stage gearbox	Starts at 400 kg (880 lbs)	Starts at 600 kg (1300 lbs)	Starts at 1500 kg (3300 lbs)	Starts at 1150 kg (2500 l
Feeding of the seed distribution system				
Single funnel	One filling funnel per row			
Rotary distributor and distributor head	2 - 6 rows, seeds are distributed across all rows			
Central seed distributor	Seed is distributed over multiple rows			
Magazine system	Seed i	s filled into a 4 or 6-row magaz	zine and distributed fully autom	atically
Plot length				
Multi-stage gearbox	1 – 15 m	0.6 – 10 m	0.6 – 10 m	0.6 – 10 m
Zero-Max gearbox – continuously variable	_	1 – 12 m	-	_
Seed distribution systems				
Variants	6 belted cones with 120 mm or 4 with 195 mm	7 belted cones with 120 mm or 4 with 195 mm	Max. 7 belted cones with 120 mm	Max. 6 belted cones with 120 mm
Variants	In combination with small belted cones, a 290 mm belted cone can be installed for drill seeding			_
Control unit				
Control unit	ol unit Global Seed Control (GSC)			
Opener systems				
Shoe opener	ISARIA or NODET	WINTERSTEIGER or NODET	HORWOOD BAGSHAW	WINTERSTEIGER or NODET
Single disk opener	ACCORD CX	ACCORD CX	_	ACCORD CX
Double disk opener	NODET	NODET LEMKEN GREAT PLAINS	ACRA PLANT SUNFLOWER Opener	NODET LEMKEN GREAT PLAINS

We reserve the right to make technical modifications.

GPS Technology

Use of satellite navigation in field trials.

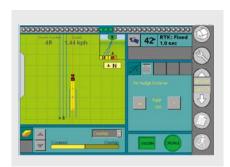
WINTERSTEIGER gives you the option of fitting state of the art GPS technology to any seeder. WINTERSTEIGER cooperates with experienced partners in this area. Together, we have developed a system that is simple to use and supports your field work in a reliable way.

Your benefits summed up:

- Simple use of GPS technology
- Maximum sowing precision for extremely reliable results
- Complicated field marks are no longer needed
- If needed, the funnel on the row unit can be triggered automatically
- Faster sowing speeds than with legacy technology
- Automatic steering system available for maximum tractor accuracy
- Comprehensive documentation available after sowing
- Available for all seeders



Safe and simple sowing with GPS technology



Perfect visibility during and after the task at hand



Fitting the control display to the tractor



RTK station for maximum precision sowing

Kubota

Small tractor for plot seeders.

Powerful, versatile tractor.

The Kubota plot tractor is a small tractor that has been specially adapted for the Plotseed S, Rowseed S and Monoseed B/DT/K machines. It has its own attachment frame, sowing drive, and hydraulic sowing PTO to suit it perfectly to your choice of planter. An automatic steering system is available as an option.

Your benefits summed up:

- Variety of front- and rear-mounted applications
- Easy to transport thanks to low deadweight
- Highly maneuverable thanks to compact design





WINTERSTEIGER After Sales Service. The delivery is just the start of our service.

The best time to evaluate the quality of an investment is several years after delivery. That is why WINTERSTEIGER has set up a worldwide After Sales Service.

Commissioning and training

WINTERSTEIGER ensures both with its experts worldwide and of course on site.

Proactive maintenance

Maintenance and preventive exchange of pre-defined parts subject to wear and tear at pre-set times eliminate problems before they arise. For example, during our customers' annual holiday to keep maintenance costs as low as possible.

On-Call-Help-Desk

This service underlines our high claims for service for our partners worldwide. It ensures first class support even outside our own hours of business.

Strong customer service team

A large team of extremely well trained service staff provides comprehensive care for:

- Installation and commissioning
- Training
- Preventive maintenance
- Conversions
- Modifications
- Clearing faults
- Repairs
- Support
- Rapid supply of replacement parts

Advice services

- Advice from experts on technical equipment for research facilities
- Participation at international seed breeding symposia
- Arranging contacts with experts
- Advice from agricultural consultants in the definition and implementation of projects and technology transfer



Intensive guidance and training courses

WINTERSTEIGER regularly holds guidance and training courses for operating staff, either directly on site, in our original building in Austria or one of our agencies around the world. They are the basis for perfect mastery of the machines and an uninterrupted harvest. This helps avoid down time and saves costs. Both WINTERSTEIGER service engineers and the service engineers from our agencies receive ongoing training and product information about new developments.

Those who sow also harvest with WINTERSTEIGER.

WINTERSTEIGER has positioned itself at the peak of a niche, which will become more critical in the future. Today, agricultural field research is challenged with providing significant contributions for a lasting food and energy supply to the world through new developments. WINTERSTEIGER provides the necessary technology.

Uniquely designed products offer a range, which covers the entire cycle of field research from the sowing to the harvesting:

Sowing

Precision spaced planters, plot drills, single row seeders and plot tractors for the front and rear planting with seed machines

■ Fertilization and plant protection

Fertilizer distributors, field sprayer and hand-pushed plot sprayer

■ Data collection

Field PC's for mobile data acquisition

Harvesting

Plot combines, stationary combines and forage harvester

■ Laboratory analysis

Laboratory thresher, laboratory corn sheller, seed dresser, sample chopper and sample divider



Plot combine Split



Plot combine Quantum

As complete provider in agricultural testing, WINTERSTEIGER proves itself as strong partner for customers in various fields:

- Agricultural Universities and research centers
- Agricultural ministries and their departments for plant breeding
- National and international institutes for development projects



Precision spaced planter Dynamic Disc



Laboratory thresher LD 350

- National and international companies that research in the field of plant breeding
- Service companies that test for research companies

WINTERSTEIGER. A Global Player.

WINTERSTEIGER AG is an Upper Austrian machine building specialist and has focused on niche markets since its foundation in 1953.

The internationalization of the markets and the technological revolutions have become the deciding factors in the global competition. WINTERSTEIGER has always considered such

challenges as opportunities and has taken advantage of them. This has resulted in continuous growth, which is further ensured by the innovative power of its employees and driven through strategic acquisitions. In this way we succeeded in providing the optimal conditions for long-term and stable partnerships with our customers.

The business fields of the company consist of:

SEEDMECH

■ Turnkey solutions for plant breeding and research

SPORTS

- One-stop supplier for ski and snowboard rental and servicing
- Systems for hygienic drying of sports goods and work clothes
- Fit-optimizing solutions and individual sports shoe adjustments

WOODTECH

- Process solutions for precision thin-cutting, wood repairs and wood cosmetics
- Saw blades for wood and food

METALS

- Levelling technology machines and systems
- Machines for the automatic deburring of sheet metal

AUTOMATION

■ Plants and automation solutions for industrial manufacturing companies



Headquarters at Ried im Innkreis, Upper Austria

Success begins with the right decisions. At the right time. We look forward to you!





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