

Spirit

High precision - perfect emergence





Where farming starts

Together with farmers all over the world, we have spent the last three generations creating machines that make any farmland find its full potential. The high quality Väderstad planters, seed drills and tillage equipment give farmers a head start by covering more ground in shorter time without losing perfection.

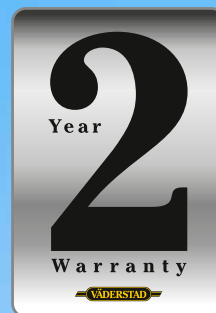
Together we make you an even more successful farmer.



High precision seed drilling

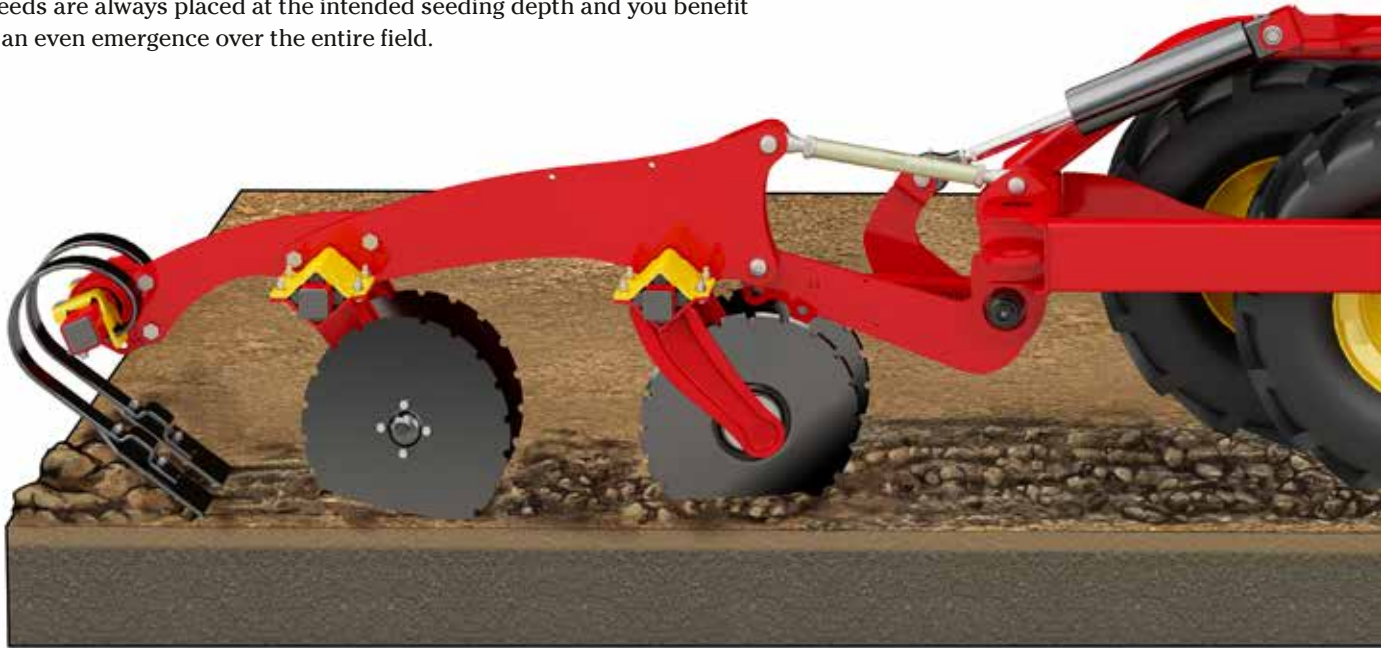
The pneumatic universal seed drill; Spirit carries out levelling, seedbed preparation, reconsolidation, seeding and pressing in one pass. It is known to provide great precision at high working speeds on the field.





Exact seed placement and a perfect emergence

Spirit is designed with powerful front tools, followed by large OffSet packer wheels. This ensures a level and firm seedbed prior to seed placement. At the back of the machine, individual mounted double disc seed coulters give the seeds great conditions for growth. Thanks to its individual row depth control, the seeds are always placed at the intended seeding depth and you benefit from an even emergence over the entire field.



High capacity - excellent results

Every component of Spirit is designed to deliver great seeding results at high working speed. The large seed hopper, high capacity metering system, large OffSet packer wheels as well as the generous diameter of the seed coulters are all examples of this. You benefit from a high seeding capacity, making it possible to cover more ground in shorter time.

Designed for performance

Spirit is built as a heavy-duty machine with a compact design. Its strong construction adds durability and ensures great results during a long working life. The compact design enhances the manoeuvrability and its ability to keep the precision in uneven field conditions.

125mm row spacing for maximum yield

1

Competitiveness

A narrow row spacing provides the crop with considerably higher competitiveness against weeds. This is especially important as more herbicide resistant weeds are on the increase. Research shows that 125mm row spacing results in 20% less weeds than 150mm.

2

Population distribution

125mm row spacing gives a better population distribution, allowing for a larger spacing between the seeds in the row. The fungi pressure is also reduced.



Wide area of usage

Spirit can be used in a range of conditions, from ploughed land to minimum tillage. Its design allows for a high throughflow, further making it able to cope with moist soil conditions.

To achieve exact seed placement in lighter soils or at shallow drilling, Spirit is equipped with double OffSet seed discs.

3

Canopy closure

Since narrow rows close faster, the evaporation is reduced at a time when the access to moisture is most crucial.



Adapts to the field

The heart of Spirit is its responsive seed coulters system. It has an excellent ability to adapt to any irregularities on the field, thereby keeping the seeding depth constant at all times. The result is an impressive seed placement and an even emergence over the entire field.





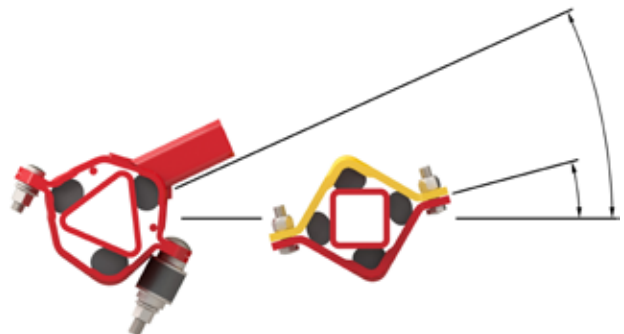
Designed for consistent seeding depth

The Spirit seed coulters consist of double seed discs connected to a large depth keeping press wheel. Each seed coulters is individually mounted on a rubber suspended arm, and the seeding depth is set by applying hydraulic pressure. This system allows for excellent contour following with great results at high working speed.



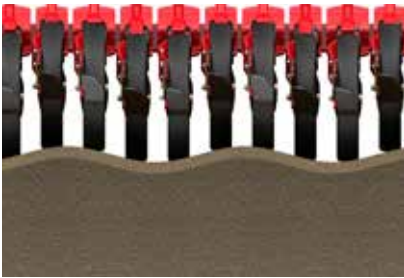
TriForce for excellent contouring

The three bar rubber suspension TriForce is Väderstad's unique coulters suspension. TriForce doubles the coulters' contour movement compared to a conventional four bar rubber suspension. This gives perfect seed placement on uneven ground, such as wheel tracks or undulating fields.



Seeding depth as its top priority

A seed planted at the correct depth will emerge at the right time and get a competitive edge against both pests and weeds. Knowing this, every part of the Spirit seed couler is constructed with precision in mind.



Uneven ground

Having each seed couler mounted on its own arm allows the seed coulters to respond to any irregularities on the field. The working depth is constantly maintained over the entire working width.



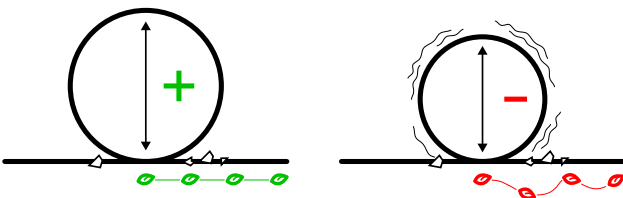
Varying soil types

To adapt to varying soil conditions, the couler pressure can be altered from the cab on the move. The result is a consistent seed depth over the entire field, despite variations in soil types. The wide press wheel has a great ability to stay on top of the field surface, reducing the need to adapt pressure.



Hilly terrain

To ensure an even seed depth in hilly terrain, Spirit is equipped with active seed couler pressure. The machine immediately registers if it is located on a crest or a trough. If so, automatic valves directly compensate for an increased or decreased pressure. The seed couler pressure is kept at a constant pre-set value, irrespective of which working angle the seed coulters are in, relative to the rest of the machine.



Size minimises vibrations

The generous diameter of the seed discs and couler press wheel results in a smooth ride with minimal impacts from vibrations, further increasing pressure.



Versatile press wheel

The width of the couler press wheel enhances its ability to stay on top of the field surface, irrespective of soil condition. The soft tyre profile widens the contact surface to the soil, further increasing the spectra of usage and ability to close the seed slot.

Impressive seed placement

A perfect seed placement is all about details.
By leaving nothing to chance, Spirit ensures that
each seed is granted great conditions for growth.
This maximises the potential of each seed.





Seeding precision in depth

The Spirit seed coulters set a great focus on details impacting on seeding precision. The heart of the seed coulters is the seed discs and press wheel working together for best results.



OffSet seed discs

The Spirit seed discs are mounted in an OffSet position. This reduces the draught force required for opening the seed slot. Due to the OffSet mounting, the seed discs keep their position over time, maximising precision while reducing maintenance.

Precise seed delivery

The seeds are released in front of the seed discs centre. The rotation of the seed disc helps place the seed in the bottom of the seed slot, enabling immediate access to moisture. This system does not require a seed firmer, reducing wearing part costs.

Swedish quality

The Spirit seed discs are built from special hardened V-55 Swedish steel. This carefully selected raw material delivers a robust construction, excellent performance and extremely long working life in the field.



Seed disc shape matters



Great depth keeping

The sharp attack angle of the seed discs reduce the pressure needed to create the seed slot at desired depth. The depth keeping ability of the seed drill is multiplied as a result.

Narrow seed slot

The disc shape in combination with OffSet creates a narrow seed slot with minimal disruption to the soil. This improves the seed distribution in the row, as well as making it easier to shut the seed slot.

Higher throughflow

Spirit has a narrow seed coulter due to the seed disc design. This allows more material to pass through the machine, improving performance while drilling in crop residues.

Clean wheel keeps seed depth

The tyre in combination with rear mounted scrapers keep the wheel clean. This prevents soil from sticking to the wheel which could alter the seed depth.



Front tools without compromises

When seeding with precision, no compromises can be made on the front tool. To effectively prepare the seedbed, Spirit is equipped with heavy-duty front tools, equal to a compact disc cultivator. It is able to handle crop residues as well as rough conditions on the field.





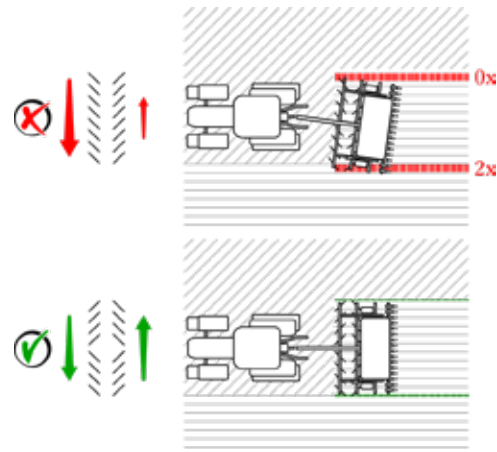
Full-scale seedbed preparation

Spirit is equipped with powerful front tools, adjusted from the cab on the move. If an additional levelling is required an individually adjustable CrossBoard can be mounted ahead of the disc tool.

X-disc – To reach full potential

To gain full control, it is very important that the seed drill does not alter from its straight track behind the tractor, something that is further essential in hilly conditions. The x-disc setup of the front tool keeps the machine straight behind the tractor.

The x-disc is a natural component for modern farming and a crucial factor to reach the full potential of a GPS or RTK-system.



One arm for each disc

Each disc in the front tool is mounted on its individual suspended disc arm. This secures perfect contour following, to grant the same conditions for each seed.

The open design provides a high throughflow, enabling drilling in heavy crop residues. All bearings are well protected on the back of the disc.

Always at correct angle

Since the front tool is mounted on a parallel linkage, an even working angle is guaranteed irrespective of working depth. Additionally, the conical disc shape ensures the same angle, no matter wear or working depth.



Conical shape

The shape of the front tool discs provides agronomical advantages for the coming seed growth.



Crumbling and mixing

The conical shape of the discs create a high degree of fine tilth, important for the seed-to-soil contact. The shape of the discs provides intensive mixing, preventing dry soil from being turned into the seeding horizon.

No sideways compaction

The straight attack angle of a conical disc leaves an open cultivation bottom free of compactions. This gives a great environment for root development with good moisture transport.

Presses down stones

A conical disc can not pick up stones from the field surface. This minimises disturbance for the seed coulters, ensuring seeding precision.



The packer wheels create an even seedbed

To ensure a firm seedbed prior to seed placement, large packer wheels consolidate the soil between the front tool and seed coulters. This offers great advantages in lighter soil, as well as in fields where the soil is loose as an effect of a deep cultivation or a cultivation with insufficient reconsolidation.

Wheel designed for performance

The large diameter of the packer wheels provide a calm ride at high speed. Because of low rolling resistance and a wheel pattern designed for minimised bulldozing, this also reduces the fuel consumption.

The width of the packer wheels ensure level results over the entire working width. The packer wheels are mounted individually, enabling easy access for maintenance.





OffSet provide benefits

OffSet means that every second packer wheel is displaced backwards on a separate axle. This solution both improves the agronomy and farm economy.

Lower draught requirement

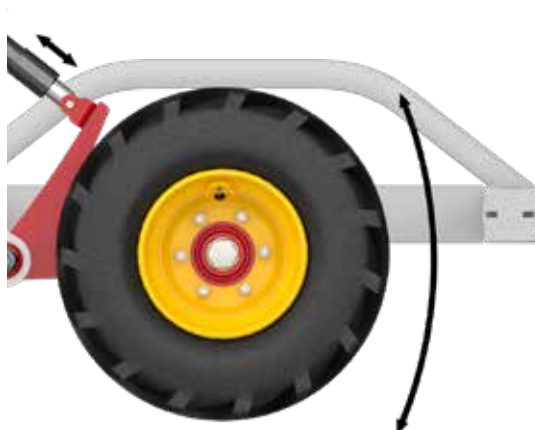
According to studies, OffSet minimises bulldozing and lowers the draught requirement by 25%.

Depth precision

The large OffSet wheels provide a calm ride, leading to lower vibrations. This results in higher depth precision.

Great carrying capacity

Having two separated wheel axles increases the contact surface to the soil, providing great carrying capacity.



Double-acting middle packer

To ensure the same conditions for each seed, Spirit is equipped with a hydraulically adjustable middle packer that runs between the tractor wheels.

You benefit from an even emergence over the entire working width. During transport the middle packer provide stability and increased safety on uneven roads.

Combi-drilling secures success

Nutrient placement during drilling provides a fast and reliable fertilisation effect. Since the fertiliser is placed in moist soil there is less dependence on rain, while placement also gives high yields and better nutrient use efficiency.

To match different farming needs, the combi-version Spirit is available with two different fertilising methods – FIX or Nordic.



The FIX version places the fertiliser in 5cm wide strips at 125mm row spacing, in front of every seed row.

FIX

The FIX-version places fertiliser in 5cm wide strips at 125mm row spacing, in front of every seed row. The fertiliser depth can be adjusted from the cab according to the soil condition.

Having the fertiliser coulters integrated in the front tool lowers the draught requirement, maintains penetration force and reduces wear part cost compared to having a separated fertiliser axle.

The narrow fertiliser row spacing makes it insensitive to curves or shifting field terrain.



The Nordic version places the fertiliser at 250mm row spacing between two rows of seed, allowing full moisture access.

Nordic

The Nordic-version places fertiliser between every second seed row at a row spacing of 250mm. This means that the fertiliser ends up 6.25cm from each row of seed.

It has aggressive disc fertiliser coulters that place fertiliser with a very high coulters pressure. This is a benefit in conventional tillage spring drilling in dry conditions, where working directly below the seedbed can cause the seed slot to dry out.



BioDrill - Multiple products in one pass

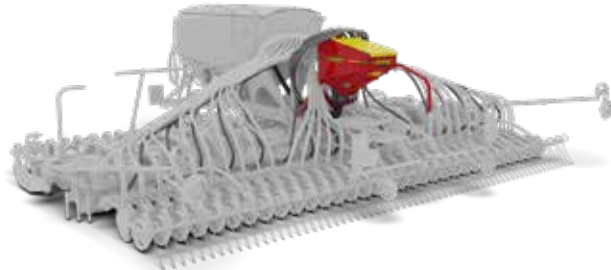
By equipping Spirit with the mountable small seeder BioDrill, a small-seeded crop such as cover crops or ley, can be drilled together with the main crop. The spreader plates distribute the seed evenly in front of the drill

aggregates, where it is covered by the flow of soil around the seed discs and by the press wheel. BioDrill provides an accurate seeding at the same time as saving passes on the field.



BioDrill 360

Spirit 400C/S and Spirit 600-900C/S can be fitted with BioDrill 360. The pneumatic BioDrill 360 is equipped with electric Fenix seed metering system, allowing for uniform drilling of small-seeded crops with precision down to a seed rate of 1kg per hectare.



Exact seeding result

BioDrill 360 uses the powerful hydraulic fan from the seed drill allowing for large quantities of seed to be uniformly distributed over a wide working width. The powerful fan ensures the seeding result remains constant in all field conditions.

Spirit R 300S

Spirit R 300S has all the benefits of a small seed drill, while taking advantage of the innovative technology and high precision from the larger models. You benefit from high capacity, precision, user-friendliness and reliability on the field.



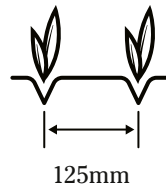
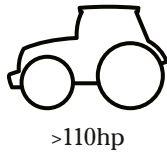
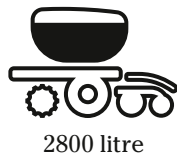
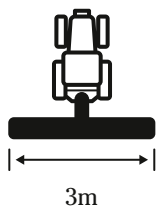
Spirit R 300S is a pneumatic seed drill, available with 3 metre working width.

Next generation precision metering

Spirit R is equipped with the user-friendly and easily accessible metering system Fenix III. It is able to handle seed rates down to 1kg per hectare, while also enabling high doses, never limiting capacity. One important feature of Fenix III is the soft rotor that seals the system and lowers the air requirement, in turn saving diesel. Fenix III achieves great precision which leads to an even emergence.

Large, easy to fill seed hopper

The 2800 litre plastic seed hopper is designed to provide a low filling height with large opening. The working platform is positioned on the side of the seed hopper for easy access when filling. The high positioned integrated fan reduces dust intake and increases drilling precision.



Front tools



System Disc Aggressive



CrossBoard Heavy
System Disc Aggressive

High technology - agile format



Seed is metered by two Fenix III units, each metering one half of the machine, this enables half machine shut-off from the cab.



The pivot packer option consolidates the soil between the tractor wheels enabling each seed to have the same conditions for germination.

Spirit 400C/S

Spirit 400C/S has a heavy-duty frame with a long working life. The high precision metering and large seed hopper provide an impressive result with less downtime on the field.



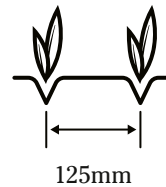
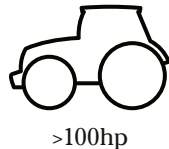
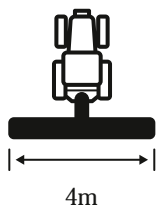
Spirit 400 is a 4 metre wide pneumatic seed drill, available either as the seed-only version Spirit 400S or as the combi version Spirit 400C.

High precision seed and fertiliser metering

The metering system Fenix II, combines high precision metering with great capacity. The combi version Spirit 400C meters out both the seed and the fertiliser via two separate Fenix II metering systems. Fenix II is driven by a heavy-duty electric motor enabling Spirit 400C to meter up to 500kg fertiliser per hectare at 15km/h.

Large hopper capacity

To minimise downtime in the field, Spirit's hopper capacity is 3740 litre for the seed-only version and 3900 litre for the combi version. The hopper is very easy to fill due to its large opening with a roll-up cover operated from the ground.



Front tools
Spirit 400C



FIX - Combi models

Front tools
Spirit 400S



CrossBoard Heavy



System Disc Aggressive



CrossBoard Heavy
System Disc Aggressive

Precision and reliability



With an open machine design, you benefit from good access to all components throughout the machine.



The combi version Spirit 400C uses the Väderstad FIX technique which places fertiliser in 5cm wide strips at 125mm row spacing in front of every seed row.

Spirit 600-900C/S

Spirit 600-900C/S is a universal seed drill for high capacity drilling in conventional and minimum tillage. It is equipped with innovative solutions that increase the precision and simplifies the operations at the farm.



The pneumatic seed drill Spirit 600-900 is available either as the seed-only version Spirit 600-900S or as the combi version Spirit 600-900C. It exists in 6, 8 or 9 metre working width models.

High capacity seed metering

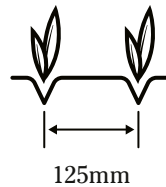
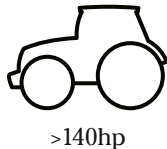
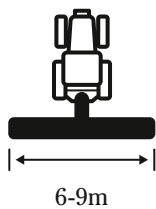
Spirit 600-900C/S is equipped with two Fenix II metering systems that provide constant and reliable seed metering. The strong motor permits high seed rates at high speed. Due to the high location of the integrated fan, the dust intake is minimised, increasing drilling accuracy. To optimise the air distribution according to the respective seed and fertiliser type, all airflows on the combi-models are adjusted with the integrated AirBalance system.

Fertiliser metering without limits

The fertiliser is metered out via a distributor auger located at the bottom of the hopper. A hydraulic motor drives the auger and provides limitless fertiliser capacity. Due to a dividing wall in the hopper, the relation between the seed and fertiliser sections can easily be adjusted. If needed the whole hopper can be used for seed.

Automatic headland management

When lifting or lowering the seed drill at the headland, the automatic sequence control lifts or lowers the working zones one by one. When entering the field the system makes sure the front tool is lowered into the soil before the seed coulters and the following harrow.



Front tools
Spirit 600-900C



FIX - Combi models



Nordic

Front tools
Spirit 600-900S



CrossBoard Heavy



System Disc Aggressive



CrossBoard Heavy
System Disc Aggressive

Maximum drilling output



Spirit 600-900C/S enables the driver to conduct half machine shut-off directly from the driver seat.



The combi-model Spirit 600-900C has a high capacity 5000 litre hopper, while the seed-only model Spirit 600-900S holds 3900 litres.

Väderstad E-Control

– New generation control system

The iPad-based control system Väderstad E-Control wirelessly connects to the Väderstad machine enabling full access to its functions and data. You benefit from user-friendly remote setup and calibration, as well as real-time monitoring and control. E-Control is available for Spirit R 300S and Spirit 600-900S/C, while Spirit 400C/S is operated with ControlStation.



The portable office

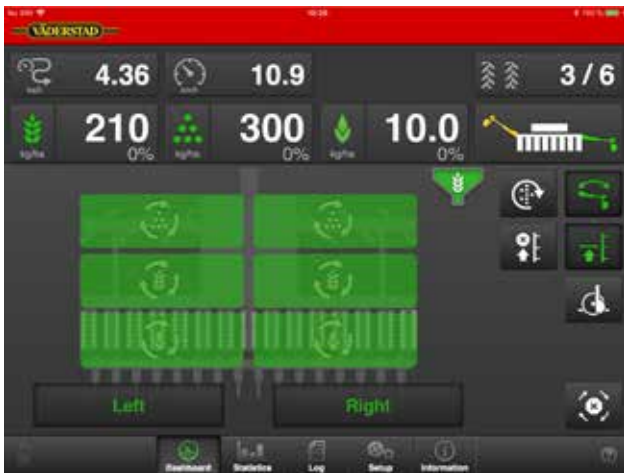
Väderstad E-Control is a fully portable control system ready to be used when and where it is required. When calibrating the Väderstad machine, you can take the portable iPad out of the tractor and control the calibration from outside.

When your day is over you can take the iPad to the office and start planning the next day's work.



State of the art graphics

The high-resolution iPad-display presents all the information clearly. The outstanding graphics makes every function easier to utilise.



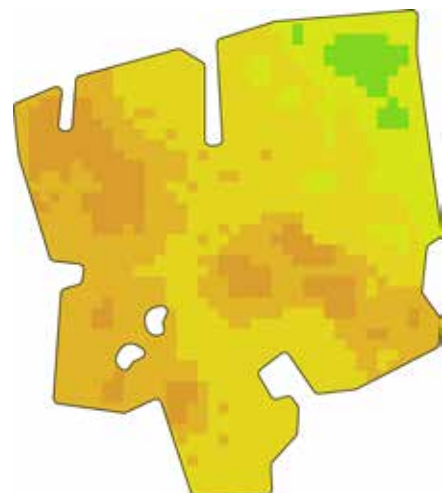
Since Väderstad E-Control is used for many planters and seed drills in the Väderstad range, the same iPad can be used for multiple machines on the farm.

Always up to date

At Vaderstad we find it very important to provide the best support and service for all our customers. Therefore, all E-Control software updates are easy to download free of charge. With E-Control, you are always sure to benefit from the latest technology and the newest innovative solutions from Väderstad.

Combined control with ISOBUS Task Controller

Using Väderstad E-Control together with an ISOBUS terminal allows for automatic GPS section control and variable seed rate. A list of terminals compatible with ISOBUS Task Controller can be found on our web page vaderstad.com by searching for ISOBUS.

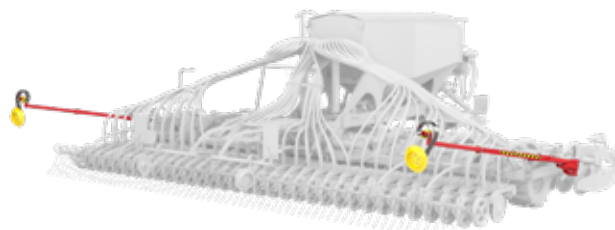


Accessories



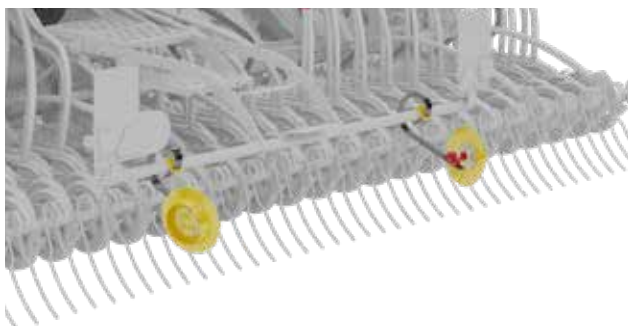
Drawbar and towing eye

The following options are available: towing eye 40/50mm, Ball coupling 80mm, Ball towing eye 42/51/71mm.



Markers arms

Marker arms with easy adjustment for different soil conditions.



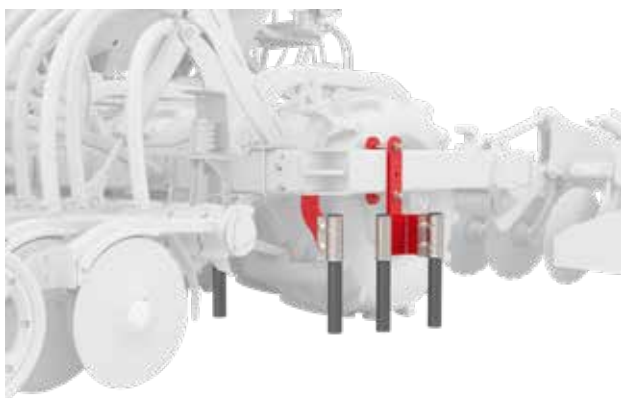
Pre emergence marker

The pre emergence markers consists of discs marking the position of tramlines, without disturbing the seeds.



Track eradicators

Loosens the soil in the tractor wheel tracks.



Light soil kit

Evens out soil ridges between the gauge wheels on light soils.



Hydraulic support leg

The hydraulic support leg can be fitted to Spirit 400-900S and Spirit 400C. Standard equipment on Spirit 600-900C.



Pivot packer

Spirit R 300S can be fitted with 4 pivoting packer wheels.



Work light

Provides good lighting for long working days with Spirit 600-900S. Standard for Spirit 600-900C.



Slug pellet spreader plates

The slug pellet spreader plates enable application of slug pellets together with the drilling operation. Fits all Spirit seed drills with BioDrill and following harrow heavy.



Micro granulate kit

Spirit with BioDrill can be equipped with a micro granulate kit, enabling i.e. placement of a starter phosphorus together with the seeds.



Following harrow Light

The light version harrow is controlled sideways from rear seed coulters. Recommended in lighter soil conditions.



Following harrow heavy

The heavy harrow is centrally mounted with adjustable pressure and work angle. Recommended in heavy soil.

	STR 300S
Metering	Electrical
Working width (m)	3.0
Transport width (m)	3.0
Transport height (m)	2.65
Transport length (m)	7,3/8,9
Basic weight (kg)	3500
Volume seed hopper (l)	2800
Number of seed coulters	24
Row spacing seed coulters (mm)	125
Coulter pressure min/max (kg)	40/80
Wheel dimension	400/55-15.5
Hydraulic requirement	3 DA + FR
Oil flow requirement (l/min)	80
Draught requirement (hp)	100/150

	ST 400S	ST 400C FIX
Metering	Electrical	Electrical
Working width (m)	4.0	4.0
Transport width (m)	3.0	3.0
Transport height (m)	2.65	2.65
Transport length (m)	8.7	8.7
Basic weight (kg)	4800	5600
Volume seed hopper (l)	3740	3900
*Number of seed coulters	24/32	32
Row spacing seed coulters (mm)	167/125	125
Number of fertiliser coulters	-	32
Row spacing fertiliser (mm)	-	125
Coulter pressure min/max (kg)	40/80	40/80
Wheel dimension	400/55-15.5	400/55-15.5
Hydraulic requirement	4 DA + FR	4 DA + FR
Oil flow requirement (l/min)	85	85
Draught requirement (hp)	120-170	140-170

	ST 600S	ST 800S	ST 900S
Metering	Electrical	Electrical	Electrical
Working width (m)	6.0	8.0	9.0
Transport width (m)	3.0	3.0	3.0
Transport height (m)	2.8	3.85	4.0
Transport length (m)	8.7	8.7	8.7
Basic weight (kg)	6600	8300	9200
*Volume seed hopper (l)	3900	3900	3900
*Number of seed coulters	36/48	48/64	54/72
Row spacing seed coulters (mm)	167/125	167/125	167/125
Coulter pressure min/max (kg)	40-80	40-80	40-80
Wheel dimension	400/55-15.5	400/55-15.5	400/55-15.5
Hydraulic requirement	4 DA + FR	4 DA + FR	4 DA + FR
Oil flow requirement (l/min)	90	95	95
Draught requirement (hp)	170-250	220-320	240-350

DA= Double acting FR= Free return

* Depends on the row spacing 167/125mm

	ST 600C FIX	ST 800C FIX	ST 900C FIX
Metering	Electrical	Electrical	Electrical
Working width (m)	6.0	8.0	9.0
Transport width (m)	3.0	3.0	3.0
Transport height (m)	3.56	3.85	4.0
Transport length (m)	8.7	8.7	8.7
Basic weight (kg)	7600	10160	10860
Volume seed hopper (l)	5000	5000	5000
Number of seed coulters	48	64	72
Row spacing seed coulters (mm)	125	125	125
Number of fertiliser coulters	48	64	72
Row spacing fertiliser(mm)	125	125	125
Coulter pressure min/max (kg)	40-80	40-80	40-80
Wheel dimension	400/55-15.5	400/55-15.5	400/55-15.5
Hydraulic requirement	4 DA + FR	4 DA + FR	4 DA + FR
Oil flow requirement (l/min)	115	130	130
Draught requirement (hp)	200-250	270-320	290-350

	ST 600C Nordic	ST 800C Nordic
Metering	Electrical	Electrical
Working width (m)	6.0	8.0
Transport width (m)	3.0	3.0
Transport height (m)	3.56	3.85
Transport length (m)	8.7	8.7
Basic weight (kg)	7300	9140
Volume seed hopper (l)	5000	5000
Number of seed coulters	48	64
Row spacing seed coulters (mm)	125	125
Number of fertiliser coulters	24	32
Row spacing fertiliser(mm)	250	250
Coulter pressure min/max (kg)	40-80	40-80
Wheel dimension	400/55-15.5	400/55-15.5
Hydraulic requirement	4 DA + FR	4 DA + FR
Oil flow requirement (l/min)	115	130
Draught requirement (hp)	170-250	220-320

DA= Double acting

FR= Free return

More to see with Augmented Reality!

By using the “Väderstad AR” app on your smartphone or tablet, you are able to make content in this brochure come to life. The “Väderstad AR” app is available for free download in Apple App Store or Google Play Store. It is easy to use. Simply open the Väderstad AR app and point the camera towards one of the AR triggers in this brochure!



Where you see this AR trigger, there is hidden content available.



Where farming starts