

# Trailed cultivator drill **Cirrus**



# Cirrus trailed cultivator drill

More than just sowing – flexible, efficient and precise



The Cirrus trailed cultivator drill is a pneumatic seed drill which is characterised by its superb, precise working performance; both in conventional and mulch sowing. In working widths from 3 m to 6 m and hopper sizes from 3,000 l to 4,000 l, the Cirrus range is highly efficient. Due to the flexibility and different conveying system concepts, the Cirrus offers the right solution for any farm, from compact sowing combinations to large-scale seed drills.

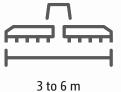


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# Cirrus trailed seed drill







12.5 or 16.6 cm





3,000 to 4000 l

up to 20 km/h

The advantages at a glance 4



# The advantages at a glance:

- Sowing without limits application of seed and fertiliser with a choice of single-, double- or triple-shoot
- ◆ The right sowing coulter for every need TwinTeC plus double disc coulter or RoTeC pro single disc coulter
- Universal segmented distributor head ensures quick and reliable seed delivery
- Comfortable and precise calibration thanks to the TwinTerminal
- Maximum precision thanks to AutoPoint, the automatic determination of the conveying time for different seed types from the metering unit to the sowing coulter
- ♠ Extensive selection of pre-running tools 4 different discs and several other pre-running elements
- Water-conserving operation thanks to Minimum TillDisc
- Optional Matrix tyres for 40 km/h in road transport and targeted, strip-wise reconsolidation in the field

### **MORE INFORMATION**

www.amazone.net/cirrus



PRODUCT FILM Find out more



SMARTLEARNING www.amazone.net/ smartlearning

# The Cirrus concept

#### 1 Maximum flexibility and manoeuvrability

- High manoeuvrability with any tractor due to the telescopic drawbar
- Low pulling power requirement makes it possible also to use smaller tractors
- Lower link cross shaft with a choice of Category 3, 4N, K700
- Cleaner and easier hitch-up for all of the hydraulic and electronic connections due to the convenient hose rail
- Standard with machine operation via ISOBUS

# 3 Flexible hopper and conveying systems – optimum individualisation for modern arable farming

- Cirrus with single-chamber hopper
- Cirrus with twin-chamber hopper and one conveying system – single-shoot
- Cirrus with twin-chamber hopper and twin conveying system – double-shoot
- Cirrus with twin-chamber hopper, twin conveying system and GreenDrill – triple-shoot



- wavy cutting disc

   Leading tyre packer
- Knife roller in front of the disc element

serrated disc, smooth disc or the Minimum TillDisc

# Perfect agronomic and economic solutions!

#### (4) Perfect reconsolidation

- Reconsolidation in strips using the Matrix tyres

#### **5** Selection of innovative coulter systems

- RoTeC pro coulter: the universal single disc coulter in 12.5 and 16.6 cm row spacing
- TwinTeC plus double disc coulter
   The high-performance double disc coulter in 12.5 and
   16.6 cm row spacing



#### 6 Precise, segmented distributor head

- Accurate sowing in wedged-shaped fields and headlands via the electric half-side shut-off and GPS-Switch with AutoPoint
- Choice of tramline width and track width

#### Modern, comfortable maintenance concepts

- Compact transport dimensions allow for fast and safe road transport up to 40 km/h
- LED work lights
- Transport box as standard
- Slip-resistant, convenient walkways
- Extended maintenance and lubrication intervals
- Enhanced quality of material and minimised wear and tear

# Cirrus – the models

## **Cirrus Compact with single-chamber hopper**

Model	Working width		
Cirrus 3003 Compact (rigid)	3.0 m		

**❸** With 3,000 I single-chamber hopper for seed



# Cirrus with single-chamber hopper

Model	Working width		
Cirrus 4003 (rigid)	4.0 m		
Cirrus 4003-2 (folding)	4.0 m		
Cirrus 6003-2 (folding)	6.0 m		

**♥** With 3,600 I single-chamber hopper for seed





Cirrus 6003-2



# Cirrus-C with twin outlet pressurised hopper and one conveying system – single-shoot

Model	Working width		
Cirrus 4003-C (rigid)	4.0 m		
Cirrus 4003-2C (folding)	4.0 m		
Cirrus 6003-2C (folding)	6.0 m		

✓ With 4,000 I twin outlet pressurised hopper – for seed and fertiliser



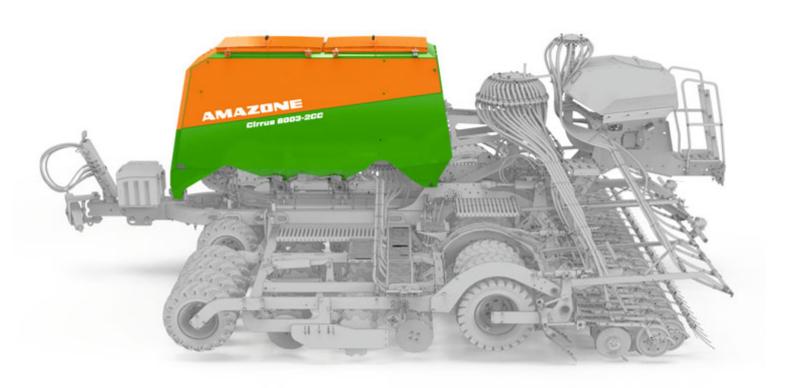
# Cirrus-CC with twin outlet pressurised hopper and second conveying system – double-shoot

Model	Working width		
Cirrus 4003-CC (rigid)	4.0 m		
Cirrus 4003-2CC (folding)	4.0 m		
Cirrus 6003-2CC (folding)	6.0 m		

With 4,000 I twin outlet pressurised hopper − for seed and fertiliser

# Hopper

# Good line of sight in the field and on the road



# Advantages of the Cirrus hopper

- **⊘** Good accessibility via the front ladder or lateral loading board
- Favourable centre of gravity and narrow hopper for good all-round visibility
- Steep hopper walls for low residual volumes
- Quick-emptying device for fast seed changeover







Twin outlet pressurised hopper

### Open single-chamber hopper

The open single-chamber hopper has a capacity of 3,600 l. Thanks to this large hopper, the re-fill times are kept to a minimum. A roll-over cover provides secure and rapid closure. This variant makes for a simple set-up which is suitable for sowing one type of seed.

#### Twin outlet pressurised hopper

The twin outlet pressurised hopper differs due to its divided hopper. Two different materials can be metered from this split hopper. The flexibly usable hopper with a capacity of 4,000 I can be used solely for seed or also in combination with fertiliser or different seed types.

### **Comfortable filling**

Steps ease climbing up and the safe loading platform with railing facilitates access to the seed hopper. The hopper can be easily filled from small bags and big bags or via a filling auger on a trailer or a loading shovel.

### Filling auger

The optional, hydraulically swivelable filling auger provides a convenient solution for quickly filling the Cirrus. Easy swivelling of the filling auger allows for convenient loading from a trailer. The filling auger can be combined with all other equipment and still allows for a good visibility during manoeuvring, due to the arrangement of the auger on the left side.



The large hopper opening makes for very convenient filling of the hopper.



# **Cirrus Compact**

The easily manoeuvrable trailed cultivator drills with single-chamber hopper



Cirrus 3003 Compact

The machine is a joy to use due to its compactness and easy operation!"

(Michael Hantelmann, farmer · 08/2021)

# Cirrus 3003 Compact Compact, easily manoeuvrable, quick!

The Cirrus Compact models offer an attractive option for smaller fields. With a 550 mm shorter axle position than on the wider Cirrus drills and in conjunction with its lower link mounting, tremendous manoeuvrability is achieved. So excellent work rates are possible, even on tight headlands. With its 3,000 I hopper capacity and a maximum speed of 40 km/h, the Cirrus Compact is ideal for farms

which do not have any facility for in-field filling. Depending on the relevant national traffic road regulations, the Cirrus is available with an unbraked axle, dual-circuit air braking or a hydraulic braking system.



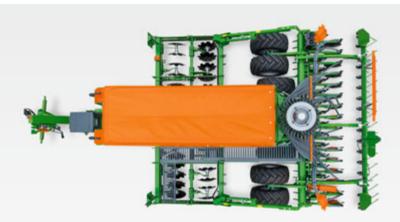
# **Cirrus**

High performance with a single-chamber hopper



Cirrus 6003-2 with TwinTeC plus

Cirrus 4003, 4003-2 and 6003-2

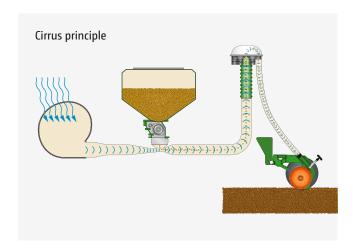




The Cirrus 4003 from above

# Cirrus 4003 and 4003-2 – compact, fast, universal

The Cirrus trailed cultivator drill, in a working width of 4 m, is available in either rigid or folding versions. The folding version folds down to a transport width of 3 m for road transport.



Single-tip seed hopper for seed only

### **Cirrus 6003-2 for higher work rates**

AMAZONE offers the folding Cirrus 6003-2 in a working width of 6 m for higher work rates and larger farms.

### Cirrus with a single-tip seed hopper

AMAZONE offers the Cirrus Compact and the Cirrus with a hopper capacity of 3,000 l or 3,600 l for the simple and effective sowing of just one seed type.



The Cirrus 6003-2 with a single-tip seed hopper

I'd recommend the machine to other farmers! It's very easy to pull and very easy to adjust in comparison to other machines!"

(Andreas Benke, farmer · 08/2021)

# Cirrus-C

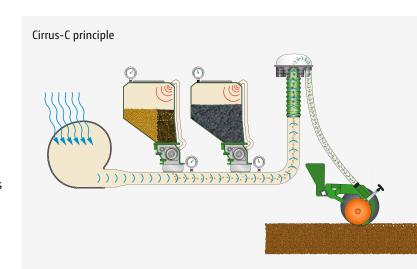
## With twin outlet pressurised hopper and a single placement point – single-shoot



The Cirrus 6003-C in operation

### The Cirrus-C system

In addition to the single-tip, open hopper version of the Cirrus, the Cirrus-C also offers a divided, twin outlet pressurised hopper and one conveying system. If, for instance, fertiliser is also to be applied along with the seed, the Cirrus-C, in working widths of 4 m to 6 m, offers the option of metering two different materials. These machines sow either a second crop or fertiliser directly with the seed into a seed row using the single-shoot method. The Cirrus-C has a hopper capacity of 4,000 l with a 60:40 split.



Twin outlet pressurised hopper for seed and fertiliser

Cirrus-C and Cirrus-CC

# Cirrus-CC

With twin outlet, pressurised hopper and up to three placement points double-shoot or triple-shoot



Cirrus 6003-2 CC in conjunction with the GreenDrill 501

### The Cirrus-CC system

With the Cirrus-CC, AMAZONE offers an additional model in the Cirrus range with a conveying system concept that allows for the delivery of two different materials. The various possible combinations of the conveyor system with the Cirrus-CC provide users with a wide range of options to meet modern arable farming methods. Both the Cirrus-CC and the Cirrus-C have a twin outlet pressurised hopper with a capacity of 4,000 l. In addition to the level

of equipment found on the Cirrus-C, the Cirrus-CC has a separate distributor head and a FerTeC single disc sowing coulter. This means that a variety of sowing systems can be used, from simple sowing to double-shoot with simultaneous single-shoot. A third crop can be sown in combination when equipped with the GreenDrill 501. This is referred to as the triple-shoot method.

#### FerTeC coulter

Due to the additional FerTeC single disc counter, which is located in front of the tyre packer, the Cirrus-CC can sow simultaneously two materials at different rates and depths. For example, fertiliser can be applied as well. This promotes the development of the young plant.



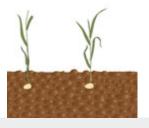


### A wide variety of agronomic methods are easy to implement with the Cirrus

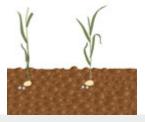
**✓ Single-shoot:** via the sowing coulter

**Ouble-shoot:** via the sowing coulter + fertiliser coulter or GreenDrill (for instance via baffle plates)

**▼ Triple-shoot:** via the sowing coulter + fertiliser coulter + GreenDrill (via baffle plates)



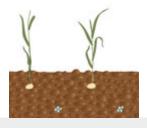
Seed only



Single-shoot: sowing seed with fertiliser at one placement depth



Single-shoot: sowing two seed types at one placement depth



**Double-shoot:** sowing seed with fertiliser at different placement depths

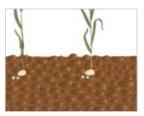


**Double-shoot:** sowing two seed types at different placement depths

Technology | Sowing techniques

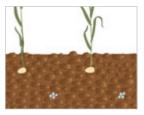


### All the methods at a glance



#### Single-Shoot

- Support of the plant at the early growth stages
- No leaching or evaporation of the fertiliser



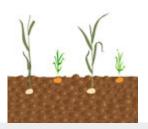
#### **Double-Shoot**

- Deep deposition of fertilisation extends the availability of the fertiliser
- Fertiliser can be placed between the rows
- Improved root development thanks to the starter dosage of the fertiliser

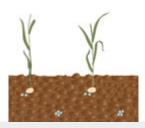


#### Triple-shoot

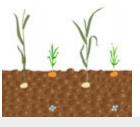
• Companion plants sown on the surface suppress weeds



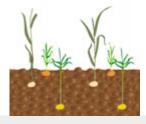
Double-shoot: sowing two seed types at different placement depths via GreenDrill



Combination of singleshoot and double-shoot: combined sowing of seed and fertiliser at two different placement depths



Triple-shoot: sowing two seed types with fertiliser at different placement depths



Triple-shoot: sowing three different seed types at different placement depths



Binary sowing: through variation of the placement depth – one coulter deeper/one coulter shallower - two different seed types can be placed at different depths

# The metering makes the difference

Simple, central and convenient adjustment. Perfect metering





For rape, linseed and poppies



e.g. for rape, stubble turnips, lucerne



For very low cereal seed rates



For catch crops, maize and sunflowers



e.g. for barley, rye, wheat



For fertiliser



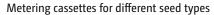
e.g. for spelt, oats, wheat



For peas and beans

Technology | Metering







The user-friendly TwinTerminal

#### **Accurate metering drive**

The metering system is suitable for all seeds and seed quantities from 1.5 to 400 kg/ha. Large metering cassettes generate low peripheral speeds and protect the seed from damage. Conversion from fine seeds to normal seeds is carried out in seconds by exchanging the metering cassettes. They can even be changed when the seed hopper is full. The metering cassettes supplied as standard cover up to 95 % of all seed types. Additional cassettes are available, for instance, for maize or specialist crops.

#### Comfort-Pack 1 with TwinTerminal 3.0

In order to make pre-metering, calibration and emptying of any residual amounts even easier, AMAZONE offers Comfort-Pack 1 with TwinTerminal 3.0 for the Cirrus in conjunction with an ISOBUS terminal. The TwinTerminal is mounted directly on the seed drill near the metering units. The location of this offers a decisive benefit: The driver can now perform the calibration operation and input the data from that calibration directly into the machine and no longer has to repeatedly get on and off the tractor. The TwinTerminal 3.0 consists of a water- and dust-proof housing with a 3.2" display and 4 large keys for control.

### Metering cassettes supplied as standard

Cirrus	7.5	20	210	350	600
	ccm	ccm	ccm	ccm	ccm
3003 Compact	х		х		х
4003	х		х		х
4003-C	х		2 x	х	2 x
4003-CC		х	2 x	х	2 x
4003-2		х	х		х
4003-2C		х	2 x	х	2 x
4003-2CC		х	2 x	х	2 x
6003-2		х	х		х
6003-2C		х	2 x	х	2 x
		х	2x	х	2x

# **Maximum flexibility**

High flexibility with the segmented distribution head









Seed pipe monitoring from DIGITROLL

# Segmented distributor head with electric half-side shut-off

The segmented distributor head provides huge flexibility for the pneumatic seed drill. Asymmetrical tramlines can be implemented without any undesirable seed rate reduction on the other half of the machine. The segmented distribution head can be used in conjunction with electric half-side shut-off. The half-side control is located directly inside the distributor head. In combination with Section Control, or the GPS-Switch automated part-width section control from AMAZONE, the use of the half-side shut-off can lead to considerable savings, as overlaps and unsown areas are avoided.

#### The benefits:

- **⊘** Electric half-side shut-off
- ▼ Reduction in overlapping saves seed
- Minimisation of dust creation inside the seed hopper because no seed is rerouted

#### Seed pipe monitoring

Another useful system to assist the driver is the optionally available seed pipe monitoring which detects immediately any blockages down at the coulter and in the seed tube. Mounted directly behind the distributor head, sensors monitor the seed flow in the seed pipes. Incorrect switch-over of the tramline rhythm is automatically detected by the system. Especially on long working days, the monitoring is an elegant solution to help keep an eye on the working performance.

### Hydraulic fan drive

The highly efficient blower fan is characterised by its low oil flow requirement of 21 l/min at 3,500 rpm as well as minimal noise generation.



# Knife roller as a front tool for the Cirrus



Cirrus 6003-2C sowing winter wheat after sunflowers

### **Knife roller**

The Cirrus can be equipped with a knife roller in front of the disc element as an option. This optional equipment improves field emergence, because additional fine soil is

produced by the knife roller. This new combination means that other passes beforehand can be dispensed with.







The knife roller on the Cirrus 6003-2

#### Wide range of applications

Preparation for cereals after sunflowers involves cutting the tall stalks at right angles and aligning them in the longitudinal direction by the Minimum TillDiscs. The seed placement accuracy is thereby considerably increased since the sowing coulter is not lifted up by the crop residues.

Even shredding and incorporation of maize stubble helps promote good field hygiene after the maize harvest. The knife roller on the Cirrus 6003-2 saves an additional run with a mulcher, a roller or a disc harrow when cultivating stubbles.

The knife roller improves the flexibility by enabling direct sowing into a standing catch crop. The catch crop is cultivated intensively in a single pass and incorporated in the soil, if necessary.

### Long service life

The Cirrus knife roller is characterised by its extreme robustness. The sturdy roller bearing mounts and the knives made from Boron steel are distinctive characteristics and ensure a long service life. The knife fixings are recessed into the round tube on the roller. The enclosed roller core is extremely insensitive to stones and dirt contamination. The knife roller is absolutely maintenance-free as a result of the spherical roller bearings and the face seals. Reversible blades, sharpened on both sides, halve the wear costs.

### Perfect working profile

A unique selling point of the knife roller is the V-shaped arrangement of the knives. Lateral pull is eliminated by this special knife layout.



Use of the knife roller to produce a fine soil seedbed when sowing wheat

# **Pre-running tool options**

### For excellent seedbed preparation



Cirrus 6003-2 in operation with Crushboard

#### Crushboard

From choice, the Cirrus can be equipped with a Crushboard in front or behind the disc element. If it is undulations that require levelling or hard clods that have to be broken, the Crushboard is in the right position in front of the discs. Under very light conditions, the Crushboard behind the discs can also help settle the soil flow. The reconsolidation will be even more uniform. The front tyre packer can also be combined with the Cirrus with Crushboard.

#### **Tractor wheel mark eradicators**

For operation on compaction-sensitive soils and at a reduced working depth, the optionally available tractor wheel mark eradicators make sense. They loosen the packed wheel tracks behind the tractor tyres. The position of the wheel mark eradicators can be adjusted horizontally and vertically. The special kinematics of the eradicators provides a constant spring force over the entire area of deflection. The wedge shares safely loosen yet, however, do not bring stones to the surface.

Combination of Crushboard and tractor wheel mark eradicators



# **Packers**

#### For even better reconsolidation



Cirrus 6003-2C with T-Pack S and T-Pack U front packer

#### T-Pack U

The front T-Pack U intermediate axle packer rolls the area in the centre of the cultivation disc element. This reconsolidates the soil again ahead of the machine. This is of particular benefit on light soils. The passively steered T-Pack U can be utilised as an intermediate axle packer in the rear of the tractor or also, in solo operation, as a front packer.

#### T-Pack S

With the T-Pack S side packer, when using the Cirrus 4003-2/2C and 6003-2/2C under light to medium conditions or following the plough, the soil can be pre-rolled ahead of the disc element, providing additional reconsolidation. The T-Pack S can be combined with the tractor wheel track eradicator on the Cirrus 6003-2.

#### T-Pack IN

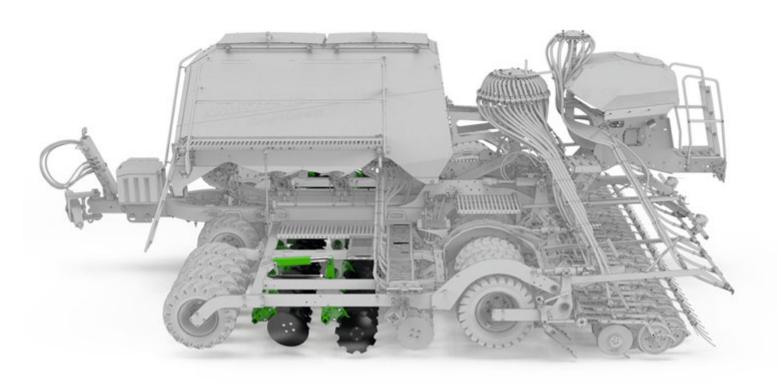
The pre-running packer on the Cirrus 4003-2/2C and 6003-2/2C can be supplemented by the T-Pack IN. This is mounted in the centre of the machine underneath the drawbar and consolidates the area between the tractor tracks.





# **Maximum effectiveness**

Seedbed preparation and sowing in just one pass



### Solo sowing at high work rates

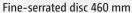
With all the technical benefits of the basic seed drill, the Cirrus without disc element is a cost-effective alternative for solo sowing but still maintains the pre-drilling reconsolidation. In this specification as well, the optional Crushboard can also be added.

# Sowing combination with 2-row disc element

The Cirrus can be equipped with the 2-row disc element for up-front soil tillage. The disc element loosens, crumbs and levels the seedbed, depending on the type of discs chosen, immediately ahead of the seed placement. The working depth of the disc element can be adjusted on the move. Via a series of holes, the end discs can be adjusted individually to ensure a level finish between bouts.

Technology | Disc elements 28 | 29







Coarse-serrated disc 460 mm



Smooth disc 460 mm

# Selecting the correct disc – coarse, fine or smooth

Several options can be selected for the disc element: a cutting disc, a coarse-serrated disc, a fine-serrated disc and a smooth disc.

#### **Fine-serrated discs**

The fine-serrated disc shows its strengths in shallow seedbed preparation. It provides more fine soil for optimum seed embedment.

#### Coarse-serrated discs

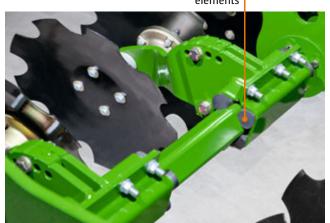
The coarse-serrated disc is ideally suited to deeper seedbed preparation. Due to its profile, extremely effective incorporation, including the mulching of harvest residues, is achieved. A steep angle of attack for the discs ensures a particularly intense mixing.

#### **Smooth discs**

The smooth disc is also ideally suited to deeper seedbed preparation. The smooth disc is also frequently fitted to the outer disc carriers, because it only throws up a small amount of soil.

# Rubber suspension elements – reliable and maintenance-free

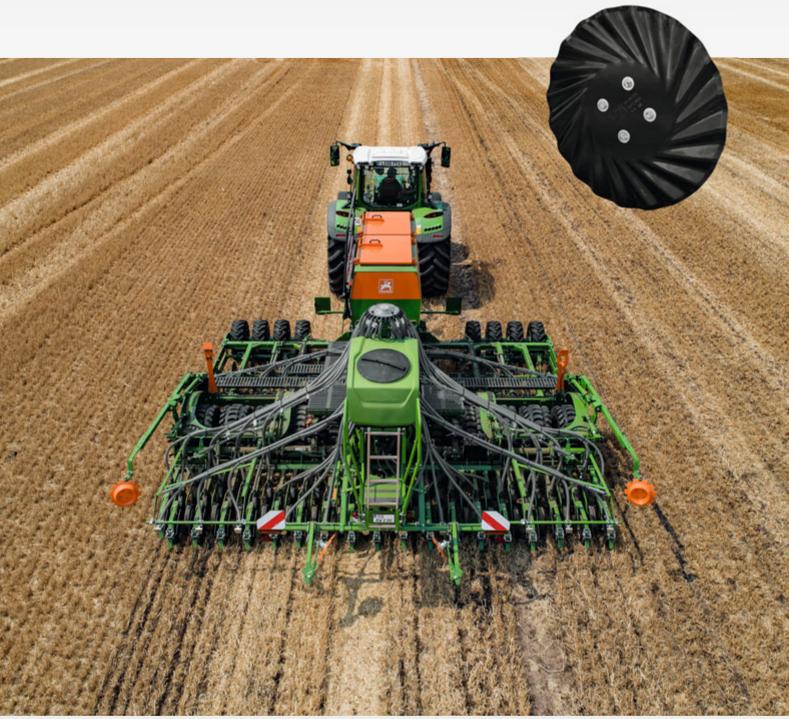
The disc system combines two discs mounted on one arm which is suspended via sprung rubber blocks and which optimally follows the ground contours. In addition, the rubber sprung buffers act as an overload safety device on stony soils. In this way, a safe, maintenance-free operation of the disc element is ensured – and at a constant, even working depth.



Rubber suspension elements

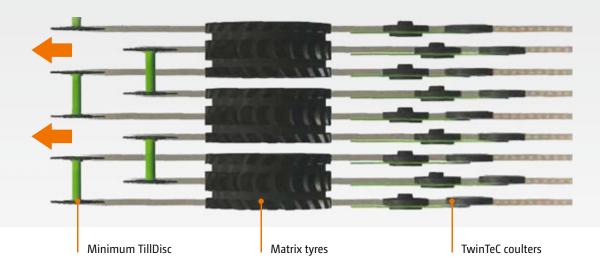
# **Minimum TillDisc**

Water-conserving strip till with cutting disc



Minimal, water-conserving soil tillage in strips with the Minimum TillDisc cutting disc

Technology | Disc elements 30 | 3



### **Minimum TillDisc cutting disc**

The Minimum TillDisc is particularly ideal for water-conserving and weed-reducing soil tillage. The amount of soil moved is minimised by using the discs in strips. It only loosens and cuts the area where the following sowing coulter runs to prevent any renewed germination of weeds. A further use is provided by adopting the disc setup in areas with higher resistance.

## Water-conserving strip till

The use of the Minimum TillDisc in dry locations allows for water-conserving strip till, as only the strip immediately in front of the sowing coulters is worked. Under moist, sticky soil conditions, the cutting disc element pulls up fewer clods to the surface than a normal disc element. Using the Minimum TillDisc also makes the Cirrus easier to pull, which has a positive effect on fuel consumption.

#### **Advantages of the Minimum TillDisc:**

- **▼** Water-conserving strip till
- **▼** Least possible soil movement
- Less clod formation
- Discs are very easy to pull



# Reconsolidation in strips

## The best conditions for even field emergence

# Optimum technology for enhanced field emergence

The Matrix tyres enable even and high field emergence. With dimensions of 400/55R17.5, these tyres feature a diameter of 860 mm with a width of 410 mm.

The high diameter combined with a special tread generates a higher self-driving effect in comparison to machines with an AS profile.

Furthermore, the independent suspension enables the machine to be pulled around curves and manoeuvred in field corners with minimal effort. In this respect, each wheel turns independently of the others and can flexibly adjust the running speed and direction with a turning angle of up to 90°. This low-stress turning process protects the machine from excessive load and wear. Furthermore, the soil is prevented from bulldozing when negotiating bends. Consistent seedbed quality and maximum soil structure protection are ensured.

### Road transport is fast and safe

The Matrix tyres not only produce an optimum seedbed but also serve as transport wheels. The machine is characterised by a high driving stability, even at a transport speed of 40 km/h. This is possible because the machine only runs on 4 wheels of the tyre packer. The high carrying capacity of the wheels allows the middle pair of wheels to be lifted up (between the 4 transport wheels).

### The key to AMAZONE's success

The principle is also known as the "sowing insurance" and has been gaining ground for a while now. The Matrix profile tyres only reconsolidate in strips where the seed will subsequently be placed in the soil. The intermediate zones are reconsolidated less heavily. This promotes an optimum gaseous exchange and allows water to quickly infiltrate the soil after rainfall.

# Reconsolidation in strips – for optimal growth conditions

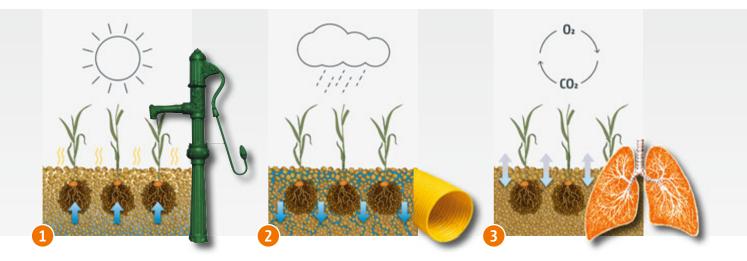
Optimum and uniform growth conditions for all plants are the basis for a quicker and more even field emergence.

These are obtained by means of a fine crumbed seedbed reconsolidated in strips. Apart from the use of the various pre-working tools, the Matrix tyre is of great importance in this respect. On the one hand, it produces even more fine soil to cover the seed, but, most importantly, its special shape provides the desired reconsolidation in strips.

#### Advantages of a seedbed reconsolidated in strips

- Uniform growth conditions for all plants
- The seed has access to the capillary soil water
- Prevention of constantly wet conditions after heavy rainfall
- Guaranteed gaseous exchange
- All the above advantages of reconsolidation in strips provide an even, high field emergence!

Technology | Reconsolidation 32 | 3



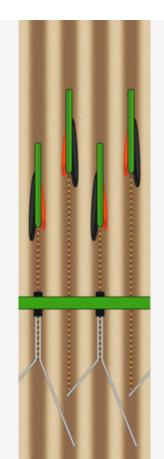
### **Sowing insurance!**

- 1) In very dry conditions the water pump principle: The reconsolidated strips provide soil contact directly under the seed furrow. In this way, capillary water reaches the seedling even in dry weather. Reconsolidation in strips ensures that your soil works as a water pump. Every drop counts!
- 2) In very wet conditions the drainage principle:
  Loose soil easily absorbs any rain and stores it. Rain
  from heavy downpours simply soaks into the unrolled,
  loose areas. Soil erosion is thereby prevented. In this
  case, the soil works like a drain. Even on heavy wet
  ground, there is enough unconsolidated soil available
  between the rows to cover the seed with loose soil.

Reconsolidation in strips

Matrix tyres create a well reconsolidated strip in comparison to tyres with an AS profile. This is a key advantage, which has a very positive effect on the smooth running of the sowing coulters.

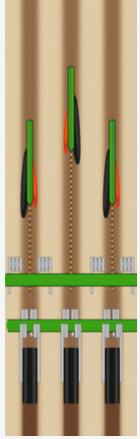
3) Gaseous exchange – the lungs principle: The loose soil also enables gases to be exchanged, so that the roots can breathe.







Plants at a row spacing of 12.5 cm



Row spacing 16.6 cm

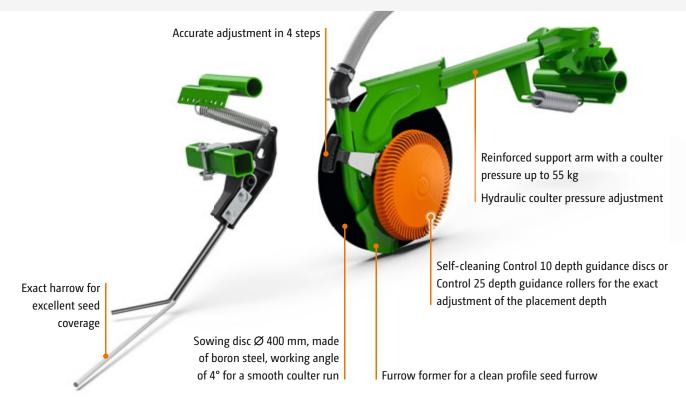


Plants at a row spacing of 16.6 cm

# RoTeC pro coulter

The universal single disc coulter

The RoTeC coulter system: tried and tested 1,500,000 times over!



# Goes right to the limit of practical operation and placement

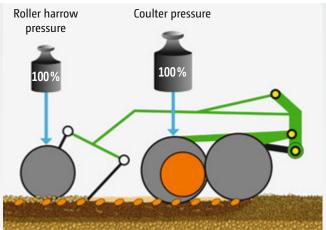
With the RoTeC pro single disc coulter, the Cirrus shows its strength especially on sticky soils, no matter whether early or late in the year. Thanks to the depth guidance directly on the sowing disc, the coulter depth guidance and the reconsolidation via the harrow are completely decoupled from each other. The depth guidance disc and the depth guidance roller help achieve, in addition, an excellent self-cleaning of the coulter. Thanks to these two benefits, a very flexible and precise operation in virtually all weather conditions is possible.

Row spacings of 12.5 and 16.6 cm can be chosen.

### **Quality and reliability throughout:**

- coulter discs made from high grade Boron steel for an even extended service life
- ✓ Wear-resistant and self-cleaning Control 10 depth guidance discs and Control 25 depth guidance rollers for exact adjustment of the placement depth
- Decoupling coulter guidance and reconsolidation for a smoother coulter run and a universal response to the weather conditions





Splitting the coulter and harrow pressures

### Sowing disc

The sowing disc is made from highly wear-resistant Boron steel and features a diameter of 400 mm. Thanks to the robust design, the wear is reduced to a minimum. Due to the large diameter of the sowing disc, the coulter runs very smoothly resulting in an excellent placement accuracy of the coulter system.

#### **Furrow former**

With the aid of the furrow former, the seed furrow is kept clear of any trash ensuring an optimum soil contact for the seed. Due to its flexible mounting, the furrow former rids itself of earth and trapped harvest residues.

#### Coulter pressure adjustment

The coulter pressure is infinitely variable with the adjustment being carried out hydraulically from the tractor cab and this serves to maintain an easy matching of the sowing depth and allows the quick adaptation to the prevailing soil conditions. RoTeC pro coulters can be operated with a coulter pressure of up to 55 kg.

#### Depth control

One of the unbeatable advantages of the RoTeC pro single disc coulter is that the reconsolidation is decoupled from the coulter depth control. This means that the coulter is raised only once when passing a stone. Furthermore, the coulter and roller pressure can be adjusted independently of each other. This very even and accurately controlled way of guiding the RoTeC pro single disc coulter is ensured by the Control 10 depth guidance roller, with its 10 mm wide contact area, or the Control 25 depth guidance roller, with its 25 mm wide contact area, directly on the coulter. The basic setting of the sowing depth takes place without tools and in 4 steps directly on the coulter.



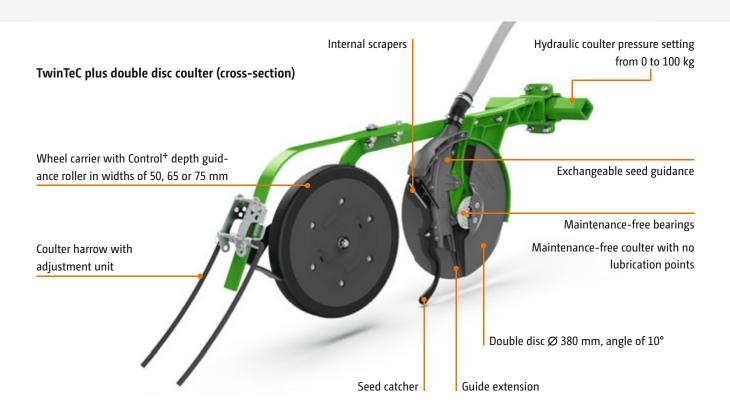
RoTeC pro coulter with Control 10 depth guidance disc



RoTeC pro coulter with Control 25 depth guidance roller The cleats, which are open at the rear, provide a very good self-cleaning effect.

# TwinTeC plus coulter

### The high-output double disc coulter



### Smooth running, rugged and maintenance free

Using the high output TwinTeC plus coulter, AMAZONE equips the Cirrus with one of the most robust and most precise double disc coulters around. Thanks to its coulter pressure of up to 100 kg and its very good cutting performance, the TwinTeC plus double disc coulter also manages very well in hard and cloddy seedbed conditions. The basic body and the coulter bearing shell made of forged steel are equipped with sufficient reserves, even under the toughest operating conditions. Due to the high coulter pressure of the TwinTeC plus double disc coulter, the sowing

performance is very precise even under mulch sowing conditions with a very high proportion of organic matter in the seedbed. Thanks to the innovative coulter pressure adjustment via an oil circuit, the coulter pressure is maintained even in very hilly terrain so that the pre-set sowing depth is safely maintained.

The TwinTeC plus double disc coulter is completely maintenance-free and therefore fulfils the highest demands.



Cirrus 3003 Compact with TwinTeC plus double disc coulter



The sharp pre-tensioned discs with a 10° angle of attack ensure a good cutting performance of the coulter. The large 380 mm diameter discs ensure a smooth run. Thanks to the large coulter clearance of 190 mm and the connection to the depth guidance roller via the top-mounted coulter carrier, sufficient space remains, so that blockage-free operation is possible.

#### Seed guidance

The guide extension and the seed catcher safely deliver the seed to the bottom of the furrow and prevent any bouncing out of the individual grains. The standard inner scraper, as an option also with hard metal wear plates, ensures the accurate operation even on sticky soils and noticeably increases the operational reliability.

#### **Depth control**

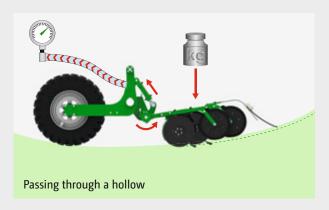
The parallel-guided depth control rollers provide the safe maintenance of the sowing depth on each individual coulter. The Control<sup>+</sup> depth control rollers are available in widths of 50 mm, 65 mm and 75 mm. This means that the working performance of the machine is ensured on any soils from the lightest sand with poor carrying ability to the heaviest clay. Optional scrapers on the depth guidance roller ensure the even guidance of the coulter even under moist conditions.



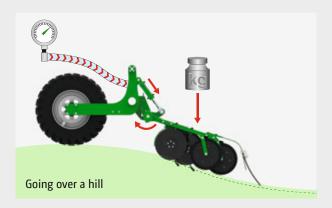
TwinTeC plus double disc coulter

#### Coulter pressure of the TwinTeC plus

Setting the coulter pressure via the ISOBUS terminal is standard. The coulter reliably maintains the pressure selected. This is of special benefit when sowing shallow in very hilly terrain.



**Hollow:** when passing through a hollow, the coulters are pressed against the ground. This creates an overpressure in the coulter pressure cylinder which is transferred directly to the oil circuit. The coulter pressure remains constant.



**Hilltop:** the coulters are lowered when going over a hilltop. This results in an under-pressure in the coulter pressure cylinder which is immediately compensated for with additional oil from the circuit. The coulter pressure remains constant.

# Automatic coulter pressure adjustment on the basis of application maps

The same placement depth in all soil types



Coulter pressure adjustment on the basis of application maps ensures the right placement depth at all times, even with variable soil conditions

Hydraulic coulter pressure **without** an application map results in an inconsistent placement depth

Hydraulic coulter pressure adjustment on the basis of application maps provides a consistent placement depth

Apart from application maps for sowing and fertilisation, the coulter pressure on the Cirrus can also be adjusted via application maps.

Arable soils may be highly heterogeneous even on an area of just a few square metres. AMAZONE offers the option of automatic coulter pressure adjustment, in order to adapt to these varying conditions in the best way possible and create the best growing conditions for the plants. The prerequisite for this is the TwinTeC plus coulter.

In addition to the sowing and fertiliser maps, a soil map can be created in the farm management system which can be loaded into the ISOBUS terminal within a very short time. The coulter pressure is automatically adjusted to the various soil zones in the soil map while the machine is in use in the field.

Up to 4 different application maps can be run at the same time with the AMAZONE AmaTron 4 ISOBUS terminal. Apart from the soil maps, work can therefore also be carried out with several sowing and fertiliser maps without any problems.

The automatic coulter pressure regulation not only provides the optimum sowing depth at all times, it also makes the work much easier for the driver. This is a great help, especially during night shifts or for operating personnel who normally carry out other tasks, and ensures a consistent quality of work.



TwinTeC plus coulter with hydraulic coulter pressure regulation



AmaTron 4 allows the simultaneous use of up to 4 different application maps

### **Following harrows**

Seed coverage, seed embedment

## **HD Roller harrow in combination with RoTeC pro**

After the seed row has been closed by the HD Roller harrow, the soil above the seed furrow is additionally pressed resulting in optimum germination conditions. This is recommended especially for light, dry soils when sowing spring crops or rape. The result is an undulating surface profile that reduces erosion. Thanks to the hardening process of the harrow tines, these offer a particularly high longevity. This means that the special advantage is that the pressure per roller can be set between 0 and 35 kg per roller, completely independently of the coulter pressure.



## Coulter harrow on the TwinTeC plus coulter

The optionally available coulter harrow provides additional loose soil above the furrow. This is especially helpful on heavy soils in sloping terrain to prevent capping and the formation of water run-off channels. In addition, any prevailing straw is distributed. The length of the harrow can be adjusted up to seven times as the tine wears. In cases where the harrow is not required, then it can be swung up into its parking position.



**Exact S following harrow** 

### Exact S following harrow in combination with RoTeC pro

The Exact S following harrow works blockage-free, even with large amounts of straw. Individual, swivel-mounted harrow elements allow it to adapt to uneven ground and achieve an even seed coverage. The Exact harrow is particularly useful when sowing under less than optimal conditions, e.g. on moist or heavy ground. The Exact harrow, with its 15 mm thick tines, is particularly low-wearing and ensures reliable seed coverage even under the most difficult of operating conditions.

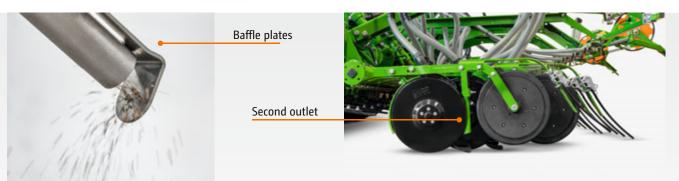
The harrow pressure is adjusted mechanically by pre-tensioning the harrow springs. When equipped with hydraulic harrow pressure adjustment, a minimum and maximum value is predefined by inserting pins. As a result, the harrow pressure and the coulter pressure can be simultaneously matched to changing soil types via just one tractor spool valve whilst on the move.



### **GreenDrill 501**

Universal catch crop seeder box with 500 I hopper capacity





Technology | GreenDrill 42 | 4



#### Comfortable, flexible and precise

The GreenDrill seeder box is the ideal solution for sowing catch crops or the under-sowing of a secondary crop in just one operational pass. The GreenDrill seed hopper is safely accessed via steps and has a capacity of 500 l. The distribution of the seed across the entire area is achieved by baffle plates in front of the harrow or by seed pipes between the coulters. As an alternative, there is also the option of sowing the seed via a second outlet on the TwinTeC plus coulter.

#### **Benefits of GreenDrill:**

- **♥** Various metering cassettes available
- Full-width application via baffle plates, seed pipes between the coulters or a second outlet on the TwinTeC plus coulter
- Easy filling via access steps
- ✓ Machine control via ISOBUS interface
- Application of a third medium triple-shoot

#### Machine control via ISOBUS

Control of the GreenDrill can be achieved in various ways, depending on the machine onto which the GreenDrill has been mounted. For example, if the GreenDrill 501 is mounted on a Cirrus, it is an "ISOBUS participant" and, as such, is fully integrated into the electronic system of the Cirrus. The GreenDrill is shown in the controls of the machine operating section of the terminal as a second or third seed hopper with metering unit.

#### **Accurate electrical metering**

The metering of the seed is carried out by an electrically-driven metering unit. The electric drive facilitates easy setting of the seed rate using the ISOBUS terminal in the tractor cab. Alternatively, the electric drive can also be controlled fully automatically using application maps. It is furthermore possible to calibrate the system at the push of a button and to do pre-metering in field corners.



Fully integrated operation of the GreenDrill 501 using the AmaTron 4 ISOBUS terminal



Easy exchange of the metering rollers





### ISOBUS as the basis for intelligent communication

#### One language, many benefits!

Each ISOBUS-enabled machine from AMAZONE comes with the latest technology and almost unlimited possibilities. It makes no difference whether you use an operator terminal from AMAZONE or an ISOBUS terminal fitted directly in the tractor. ISOBUS is an internationally recognised standard for communication between the operator terminal, tractors and connected implements on the one hand and Farm Management Information Systems on the other.

#### Operation with a wide variety of ISOBUS terminals

Which means that ISOBUS enables you to take control of all your ISOBUS compatible equipment. You only have to connect the machine to the respective ISOBUS terminal and the usual operator interface appears on the monitor in your tractor cab.

#### Benefits of ISOBUS at a glance:

- This worldwide standard provides a uniform interface and data exchange format that ensures compatibility even with third party manufacturers
- Plug and Play between machine, tractor and additional ISOBUS implements



ISOBUS 44



# Perfectly developed machine operation from AMAZONE

### AMAZONE machinery and operator terminals offer a range of functions which are very easy and safe to operate:

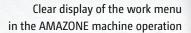
- Highest compatibility and function flexibility of your ISOBUS equipment
- No additional modules on the machine side. All ISOBUS machines from AMAZONE come ready-equipped with the necessary ISOBUS functions as standard
- Practice-oriented machine software and logical menu structure
- MiniView display with all AMAZONE terminals and additional ISOBUS terminals. See, for instance, the machine data in the map view
- Possibility of operating the machine via the tractor terminal or a twin terminal solution
- Flexible assignment of the map and machine view between the tractor terminal and the operator terminal
- Unique operating concept. Freely configurable displays and individual user interfaces for each driver
- Integrated TaskController data logger function



Clearly structured AMAZONE machine operation

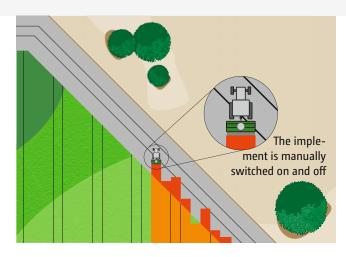
#### Advantages of the AMAZONE machine software:

- User-oriented and intuitive
- Tailored to the machine
- Function scope above and beyond the ISOBUS standard

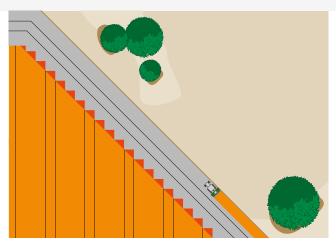




## GPS-Switch automatic part-width section control



Over- or under-sowing with manual on/off control without GPS-Switch



Position dependent, automatic control, both on and off, of the electric metering unit via GPS-Switch

#### **GPS-Switch**

With GPS-Switch, AMAZONE offers GPS-based, fully automatic, part-width section control for all AMAZONE operator terminals and ISOBUS-compatible fertiliser spreaders, crop protection sprayers or seed drills.

#### **GPS-Switch basic**

- Automatic part-width section control with up to 16 part-width sections
- Creation of a virtual headland
- Optional with AmaTron 4

**GPS-Switch pro** (as an extension of GPS-Switch basic)

- Automatic part-width section control with up to 128 part-width sections
- Marking of obstacles (e.g. water holes, pylons)
- Auto-zoom when approaching the headland
- Optional with AmaTron 4

### Automatic switching on and off of the Cirrus

If the operating terminal has Section Control, such as GPS-Switch part-width section control from AMAZONE, the part-width sections can be automatically switched on and off in relation to the GPS position.

#### MultiBoom – even more precise

For the Cirrus-CC, the seed and the fertiliser are metered by two different metering units and applied at two different delivery points using the Double-Shoot method. Since the FerTeC coulter runs in front of the roller and the sowing coulter behind the roller on the Cirrus-CC, GPS-Switch must switch the two metering units with a time offset, so that the fertiliser is placed at exactly the same point on the headland as the seed. This time-shifted control of several metering units can be achieved using the new MultiBoom control.

ISOBUS | GPS-Switch 46 | 4



### Automatic half-side shut-off with GPS-Switch – for the Cirrus

#### Accurate placement of the seed

To avoid the over and under sowing in critical areas that often occurs in practice, precise sowing is very important. The remedy for the accurate placement is offered by the half-side control which reduces the relevant working width

to half so that, especially in short-work and on the headland, a significant saving is achieved. The two halves of the drill each correspond to one controllable part-width section.

Worked area

### Switch time optimisation – GPS-Switch with AutoPoint

Automatic determination of the conveying time of seed flow from the metering unit to the sowing coulter

Minimisation of misses and overlaps for good field hygiene

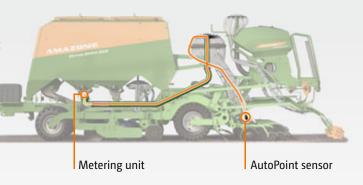
 Reduction in the disease pressure results in fewer plant protection measures and a simultaneous reduction in cost





2.7 sec.

3.3 sec.



### Workday made easy –

#### Make the most of the possibilities!

#### GPS-Maps&Doc

All standard ISOBUS terminals from AMAZONE can collect and save machine and site-specific data using Task Controller. Part-area, site-specific operation via application maps in either Shape file or ISO-XML formats is also possible.

- Easy creation, loading and processing of jobs
- Start a new task straight away and decide later whether the data is to be saved or not
- ✓ Import and export jobs in ISO-XML format
- Job summary via PDF export
- ✔ Intuitive system for processing application maps in either Shape file format and ISO-XML format
- Automatic part-area, site specific regulation of the application rate
- Indication of inactive field boundaries and automatic field detection when approaching the vicinity
- Optimum crop management via needs-based application
- Available as standard with AmaTron 4

#### **GPS-Track**

The GPS-Track parallel guidance greatly helps with orientation in the field, especially on grassland or in areas without tramlines.

- With a virtual light bar in the status bar
- Automatic tramline control via GPS for seed drills
- Various track modes such as A-B lines or contour following
- Optional with AmaTron 4

#### AmaCam

Software licence for displaying a camera image on AmaTron 4.

 Automatic display of the camera image on AmaTron 4 when reversing



Display of the application map in AmaTron 4



Display of the camera image in AmaTron 4

### AmaTron 4

Manager 4 all



Why not handle a terminal as intuitively as a tablet or a smartphone? With this in mind, AMAZONE has developed the operator-friendly AmaTron 4, which offers a noticeably smoother operational process, especially when it comes to job management. AmaTron 4, with its 8" multi-touch colour display, meets the highest demands and offers you maximum user-friendliness. A swipe of the finger or use of the App carousel allows quick changes between applications and the simple and clearly structured operating menu. The practical MiniView, a freely configurable status bar and an integrated light bar make the AmaTron 4 exceptionally easy and convenient to use.



- Automatic full screen mode when not being touched
- Automatic display of the touch buttons via a proximity sensor
- Practical MiniView concept
- Actuation via the multi-touch colour display or soft keys
- Particularly intuitive and user-friendly
- Field-related documentation
- Practice-oriented and intelligent menu navigation
- Practical quick-start menu with import and export of job data, help windows, day/night mode and the AUX-N assignment
- One camera input and automatic reversing detection
- Free trial period for all chargeable licences
- AmaTron Connect for optional entry into the digital age

Equipped as standard with:

#### GPS-Maps&Doc



everything in the one hand!

AmaPilot<sup>+</sup> -

Thanks to the AUX-N feature, you can operate multiple functions on the machine via AmaPilot+ or any other ISOBUS multi-function joysticks.

#### Advantages of AmaPilot+:

- Almost all the functions directly to hand via the 3 levels
- Adjustable palm rest
- Freely-available key assignment

### **AmaTron Connect**

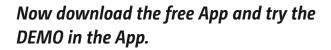
### New ways of comfortable networked operation

With AmaTron Connect, AMAZONE provides a digital interface to a smartphone or tablet. The mobile device and AmaTron 4 are simply connected as a hotspot. AmaTron Connect enables use of the AmaTron Twin App as well as data exchange via agrirouter and the myAmaRouter App.

### **AmaTron Twin App**

Clear display enhancement

The AmaTron Twin App offers the driver even more comfort during work, as any GPS functions in the map view can also be operated via a mobile device, e.g. a tablet, in parallel with machine operation on the AmaTron 4.







Everything in view at all times with the AmaTron Twin App and the holder for a tablet for rigid mounting on the AmaTron 4

#### Advantages of the AmaTron Twin display enhancement:

- Use of an existing mobile device
- ✔ Comfortable control of the GPS functions in the map view, in parallel, via the mobile device
- Clear, authentic representation of the working machine and its part-width sections

### agrirouter –

## the independent data exchange platform for agriculture



#### Secure data exchange

agrirouter is an independent data exchange platform for farmers and contractors. It enables simple and cross-manufacturer data exchange between machines and agricultural software applications, thereby reducing administration. The user retains full control over the data at all times.

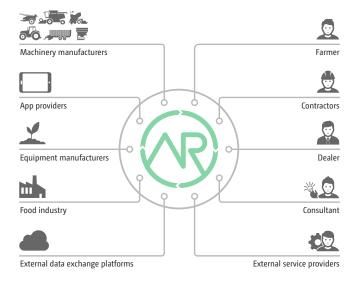
#### myAmaRouter App

For the on-line transfer of data between AmaTron 4 and agrirouter

The myAmaRouter App enables data to be exchanged between the AmaTron 4 ISOBUS operator terminal and the agrirouter manufacturer-independent data exchange platform. If an AMAZONE machine is to be used to carry out a task with job data (e.g. application maps), the data can be easily transmitted from a Farm Management Information System (FMIS) to AmaTron 4 via agrirouter and the myAmaRouter App. After the work has been completed, the job can be sent back and is available for documentation in an agricultural software application.

Watch the video for more details





The manufacturer-independent agrirouter enables secure and uncomplicated data exchange.

#### Benefits of agrirouter:

- ✓ Simple data exchange between the AmaTron 4 ISOBUS operator terminal and the manufacturer-independent agrirouter data exchange platform
- Easy and rapid transfer of job and task data without the need for a USB stick
- More flexibility in data exchange and documentation

#### Uncomplicated data transfer. Transparent and secure!



### **AMAZONE** – always in your vicinity

Your satisfaction is our challenge





#### PDF-DOWNLOAD www.amazone.net/parts



#### **AMAZONE SmartService 4.0**

Due to the increasing use of ever more complex machine technology, AMAZONE utilises, with the SmartService 4.0, both virtual and augmented reality as well as digital media for service, training and maintenance advice.

- **SmartTraining:** Training and instruction in the use of complex machinery by using Virtual Reality Technology (VR).
- SmartLearning: Interactive driver training for the user for complex machinery operation (www.amazone.net).
- SmartInstruction: Repair or maintenance instructions using Augmented Reality (AR) and mobile terminal equipment.
- **SmartSupport:** Direct local support from the service technician via Augmented Reality (AR) and mobile devices.





### The satisfaction of our customers is the most important objective

We rely on our expert sales partners for this. Also for service queries they are the reliable contact partner for end users and contractors. Due to continuous training, our sales partners and service technicians are always up to date when it comes to looking after our state-of-the-art technology.

### We provide you with a first class spare parts service

The spare parts centre in Tecklenburg-Leeden is the base for our worldwide spare parts logistics system. This ensures optimum availability of spare parts, even for older machines.

Orders for parts in stock at the Tecklenburg-Leeden spare parts centre which, if placed by 5 p.m., leave our premises the same day. 42,000 different spare parts and wearing metal parts are handled and stored via our modern warehousing system. Up to 1,000 orders are sent out to customers every day.

### Better to choose the original right from the start

Your machines are subjected to extreme use! The quality of AMAZONE spare parts and wearing metal offers you the reliability and security you need for efficient soil tillage, precise sowing, professional fertilisation and successful crop protection.

Only original spare parts and wearing metal parts provide the durability and functionality expected from AMAZONE machinery. This guarantees an optimum quality of work. Original parts at fair prices pay for themselves in the end.

#### So opt for the original!

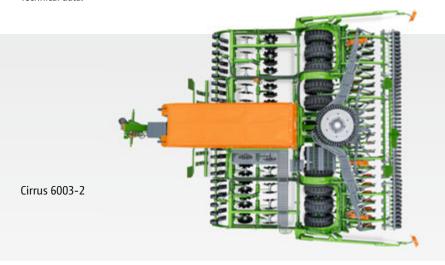
The advantages of original spare parts and wearing metal parts

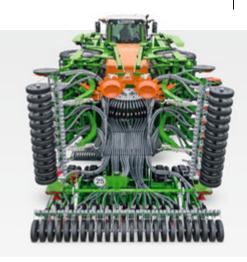
- Quality and reliability
- Innovation and efficiency
- **▼** Immediate availability
- Higher resale value of the used machine

### **Technical data:**

Cirrus trailed cultivator drill







	Cirrus 3003 Compact	Cirrus 4003	Cirrus 4003-C	Cirrus 4003-CC	Cirrus 4003-2	Cirrus 4003-2C	Cirrus 4003-2CC	Cirrus 6003-2	Cirrus 6003-2C	Cirrus 6003-2CC
Coulter system	RoTeC pro/ TwinTeC plus	RoTeC pro			RoTeC pro/TwinTeC plus					
Row spacing (cm)	RoTeC pro 12.5/16.6/TwinTeC plus 12.5/16.6									
Operational speed (km/h)	RoTeC pro 8 – 16/TwinTeC plus 10 – 20									
Working width (m)	3.00	.00 4.00						6.00		
Transport width (m)	3.00		4.00		3.00					
Transport length (m)*	6.96/7.10**		7.78		8.10/8.20**					
Transport height (m)	3.	3.16 3.25			3.16	3.55		3.84		
Execution	rigid				folding					
Power requirement (kW/hp)	90/120			120,	/160			164/220		
Seed hopper capacity (I)  Twin outlet pressurised hopper Seed/fertiliser hopper (I)	3,000	3,600	4,0001		3,600	4,0001		3,600	4,0001	
Fill height (m)	2.	90	2.80		2.90	2.80		2.90	3.00	
Filling width (m)	1.90	2.60	2 x 1.25		2.60	2 x 1.25		2.60	2 x 1.25	
Filling depth (m)	0.	80	0.70		0.80	0.70		0.80	0.70	
Linkage	Lower link cross shaft Cat. 3/4N/K700									
Base weight from (kg)	3,600	4,200 4,700		6,300 6,900		7,500		8,300		
Transport running gear	integrated									
Number of Matrix tyres	6	8						12		

<sup>\*</sup>the transport length can vary through extension of the telescopic drawbar.

Illustrations, content and technical data are not binding and may differ depending on the level of equipment. Country-specific road traffic regulations apply and must be complied with, meaning that special approval may be required. The permissible axle loads and total weights of the tractor should be checked. Not all the listed combination options are possible with all tractor manufacturers.

<sup>\*\*</sup>TwinTeC plus





Illustrations, content and technical data are not binding and may differ depending on the level of equipment. Country-specific road traffic regulations apply and must be complied with, meaning that special approval may be required. The permissible axle loads and total weights of the tractor should be checked. Not all the listed combination options are possible with all tractor manufacturers.



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