

# *AXENT 100.1*

*Working width up to 50m*

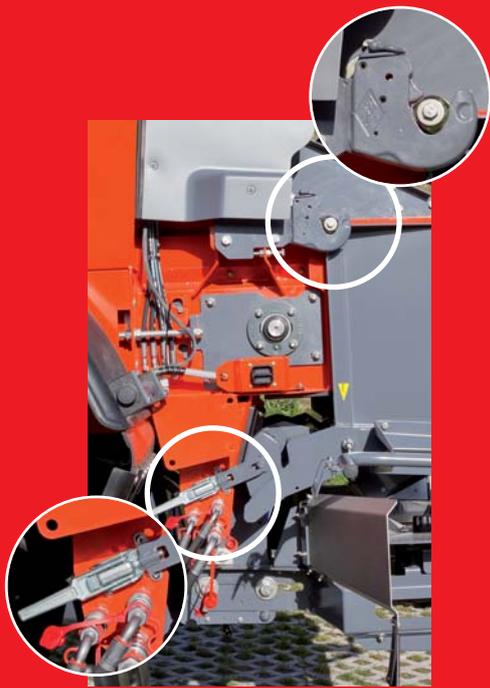


**+++ H-Drive +++ EMC +++ ISOBUS +++ GPS-Control +++ OptiPoint +++**

*The precision large area spreader for granulated  
and floury fertilisers*

# AXENT

*The all-rounder for  
fertiliser and lime*



The quick change system with stainless steel hydraulic couplings and a central electronic quick coupling enables replacement of the spreading module in only 5 minutes.



Designed for universal use AXENT convinces with high accuracy and efficiency tramline after tramline. The basis for the lucrative AXENT efficiency in professional fertilising are two specific spreading modules:

- AXIS PowerPack for granulated fertilisers
- LIME PowerPack for lime and organic fertilisers

With AXENT compromises in the combined spreading of mineral and organic fertilisers finally belong to the past.

**One for all: fertiliser and lime**

**EMC automatic metering system for precision on both sides**

**Continuous section control**

**Full and limited border spreading on the right and left side**

**AXMAT ready**

**Digital Farming ready**



A quick change system enables easy and quick replacement of both spreading modules within only 5 minutes. This saves valuable time and increases the profitability of AXENT.

Working widths up to 50m and a hopper capacity of 9 400 litres provide sufficient power for performance-oriented operations.

With the innovative EMC automatic metering system, state-of-the-art ISOBUS and GPS technology and customised equipment options AXENT opens new performance dimensions and saving potentials in cost-intensive fertilisation.

# ISOBUS

*ISOBUS can be so easy*



**CCI with split screen**



**CCI with Maxiview**

The new CCI-1200 ISOBUS universal terminal consistently continues the CCI success story.

Simply customise the 12.1 inch CCI-1200 user interface based on your personal preferences: Landscape or portrait, split screen with two large windows with additional 4 Miniviews or a clearly visible Maxiview over the entire screen. The new CCI-1200 makes it possible with only a few touches.

The intuitive menu navigation makes operation so easy and comfortable. It is even possible to operate two different ISOBUS machines at the same time.

And in case of problems, the help app installed as a standard provides problem-oriented links with practical solutions in graphic or text format.

The optional WiFi module links your AXIS EMC to the whole world of Digital Farming and the comfortable RAUCH Fertilizer Chart app.

Customised GPS applications for the section and headland control system and variable fertiliser spreading with application cards increase spreading efficiency:



**CCI apps allow perfect adjustment to the required application:**

**Series:**



**CCI.Convert**  
Serial interface for connection of N sensors, for example (only in combination with CCI.Control)



**CCI.Tecu**  
tractor data

**Optional:**



**CCI.Control**  
Documentation and order management



**Parallel Tracking**  
Parallel driving aid



**Section Control**  
Automatic section control



Operate 2 machines with one terminal

Digital Farming ready

Prepared for all GPS functions

Help app always available

Portrait or landscape format

Comfortable multi-touch operation

High-resolution 12" touch display



**CCI 50:** The cost-efficient alternative with 8" colour display

### ISOBUS accessories



**Egnos A101, AGstar DGPS receiver:** Accurate position determination



**AXMAT duo:** Radar-supported, automatic spreading pattern control



**Joystick operation:** Everything under control



**Rear view camera (series):** See what's happening behind your back



**RAUCH Fertilizer Chart app** with AutoCalibration, LoadControl and StockManager



**WiFi module:** Communication with the RAUCH Fertilizer Chart app



**SpreadLight:** The night turns into day

# AXIS-PowerPack



## AXIS-PowerPack

AXIS-PowerPack is the hydraulically driven spreading module for high-precision spreading of granulated fertiliser. Special feature: The belt conveyor system fills a pre-chamber above the spreader discs. The fully automatic electronic metering system EMC (electronic mass flow control) separately controls the left and right metering slide at the base of the pre-chamber.

The huge advantage of the AXIS-PowerPack is that all RAUCH spreading technology innovations of AXIS three-point spreaders can also be used for AXENT. Modern ISOBUS universal terminals, GPS control with the automatic section control system VariSpread and the precise headland control system OptiPoint are included in the equipment options along with section-specific fertiliser spreading and precise, remote-controlled full and limited border spreading on the right and left side.

## EMC: Fully-automatic metering

EMC measures and controls the current fertiliser flow rate fully automatically and separately at the **left and right** metering slide. State-of-the-art sensors are applied for contact-less measurement of the spreading disc drive torque. EMC achieves optimum metering precision in an impressively wide fertiliser flow range of 20 to 500kg/min.

**EMC advantage:** Changes in fertiliser flow properties are recognised and compensated separately on each side. The metering accuracy is no longer affected by vibrations or slopes. This way, EMC offers significantly higher metering accuracy in comparison to conventional weighing spreaders with control based on the fertiliser weight in the hopper.

### Full and limited border spreading of superlatives

The hydraulically driven control system of the AXIS PowerPack makes it possible: High-precision full and limited border spreading on the left and right side in the series equipment. Thanks to the combined adjustment of the fertiliser drop point and the disc speed AXIS achieves outstanding spreading patterns not only on the field border.



### AXIS EMC magnetostriction sensors

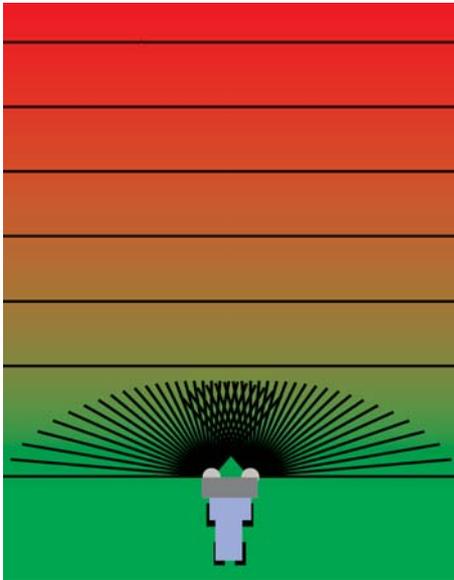
The new AXIS magnetostriction torque sensors are based on a simple physical principle: If the load on the spreading disc axis changes, the magnetic field changes as well. Based on the contact-free measurement of the change in the magnetic field, EMC calculates the drive torque of the spreading discs within fractions of a second and with high precision. This technology has already been applied successfully in millions of e-bikes and Segways.

### Clear EMC advantages

- In contrast to weigh cell spreaders, **EMC** provides separate metering of the left and right side. This increases the metering and distribution precision on both sides.
- **EMC** offers exact and reliable metering even in case of strong vibrations.
- **EMC** also ensures high-precision metering on steep slopes
- The intelligent **EMC** metering slide also provides automatic removal of blockages and clogging.
- **EMC** offers precise measurement and control of different application rates on the right and left-hand side even during spreading using VariSpread on wedge-shaped fields.

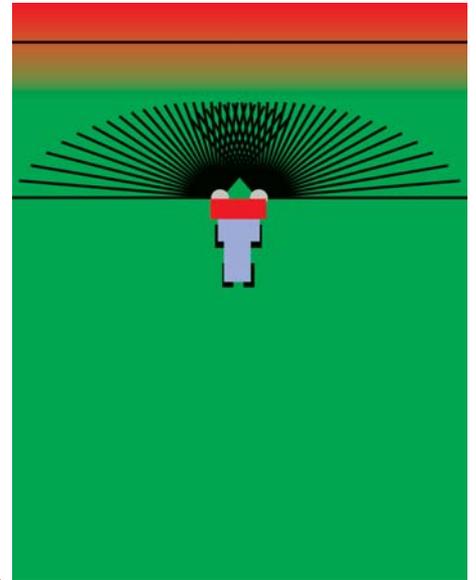
# EMC automatic metering system

## Classic weighing system (W)/EMC spreader (EMC)



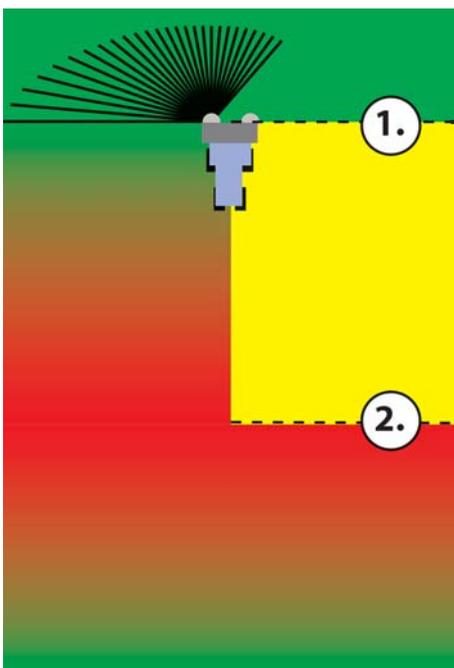
Due to the "weight measurement" system of hopper and fertiliser content, weighing spreaders require significantly longer calibration times and paths.

Calibration time/path



After opening the metering slides, EMC spreaders directly record the actual flow rate on each side. This way, EMC spreaders work with high precision after just a few seconds/meters.

**EMC spreaders react and control considerably faster**

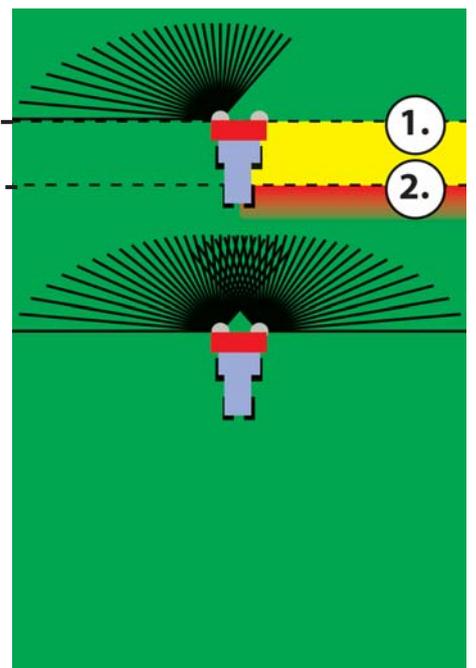


1. The left metering opening is clogged by a foreign object



2. The foreign object then falls through the metering opening

■ Over-fertilisation  
■ Under-fertilisation  
■ Optimum



The weighing spreader opens both metering slides until the foreign object can fall through the metering opening on the left side. Afterwards, both slides are wide open and it takes a long time until the correct application rate is achieved again.

Using the EMC system, the foreign object on the left side is quickly removed while the right side is not affected. Afterwards, EMC quickly returns to the correct application rate.

# LIME-PowerPack

New!  
EMC ready



**Option: fully automatic EMC metering system**

## LIME-PowerPack

### New: EMC ready

The LIME PowerPack for lime and other floury or organic fertilisers can be retrofitted with the smart EMC automatic metering system.

So far unique in lime fertilisation: Measuring the oil pressure difference at the hydraulic motors of the spreading disc drive allows fully automatic measurement and control of the application rate. The perfect online interaction of belt speed and the metering slides ensures that a constant application rate is maintained fully automatically at all times. In parallel, AXENT is controlled depending on the forward speed.

Even in case of humid lime with a high gluten content, the comb roller ensures a constant spreading material structure. The AXENT hopper walls are optimised for a smooth flow of material with an electric vibrator and allow complete emptying of the spreader.

Two robust large diameter precision spreading discs allow a high spreading material throughput, even at high forward speeds. Via the integrated, mechanical drop point adjustment the LIME PowerPack is adjusted to the spreading material and the working width up to 15m.

# Responsibility for the environment



continuous adjustment

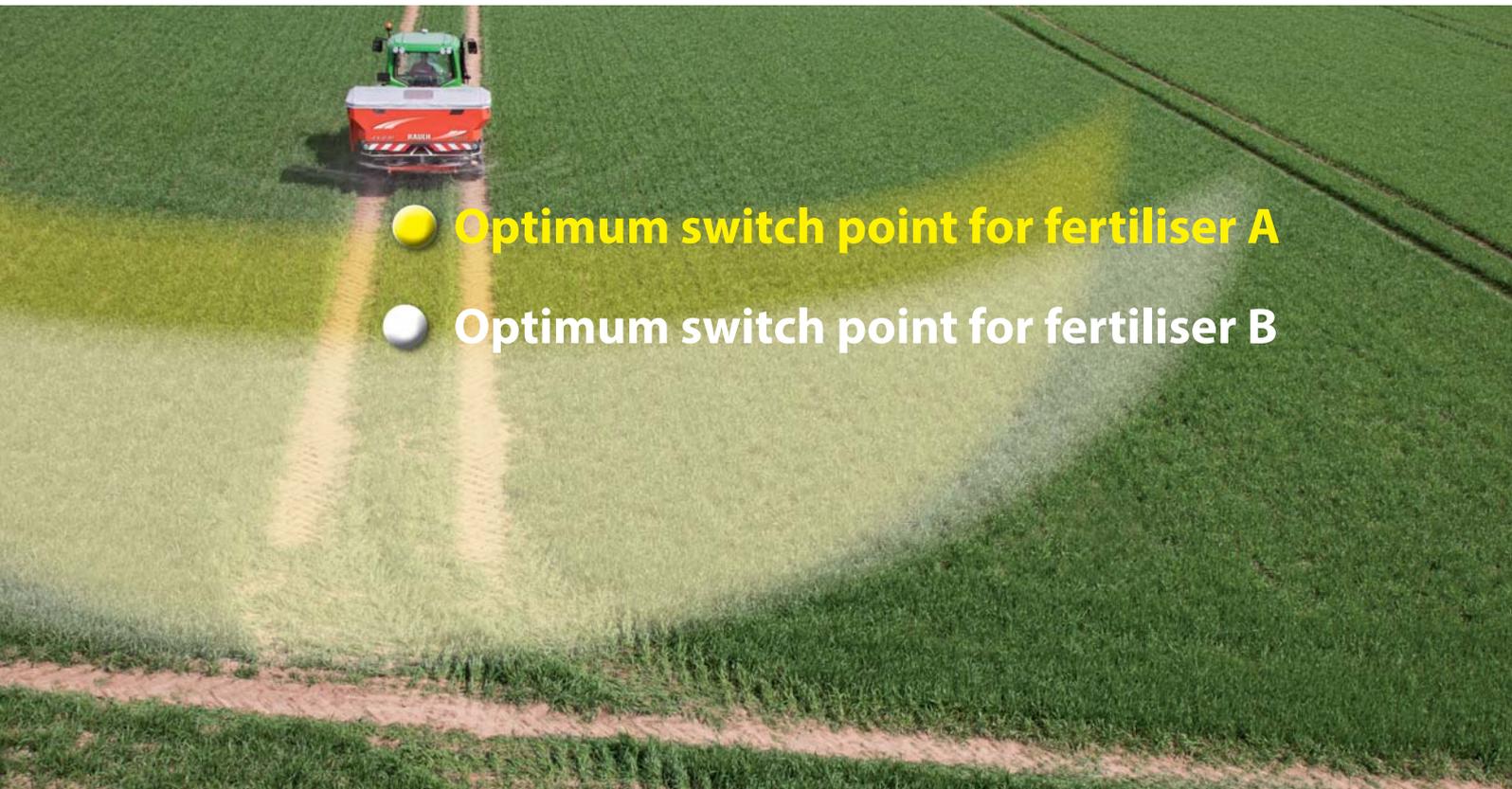
## VariSpread pro: Continuous adjustment

In contrast to conventional section control systems, VariSpread pro provides continuous working width and application rate adjustment in a fluent process. Thanks to particularly fast electric SpeedServo servomotors, VariSpread pro enables almost continuous spreading of wedge-shaped fields, odd tramlines or narrow passages when navigating around obstacles.

### VariSpread pro masters all aspects of modern section control systems with high precision:

- spreading only in external areas
- spreading beyond the centre
- automatic adaptation in case of odd tramlines or when navigating around obstacles
- VariSpread pro becomes active already during field circling, if the field borders have been saved beforehand.





## *OptiPoint with headland control*

AXENT spreaders with GPS control are equipped with the smart OptiPoint headland control system. OptiPoint calculates the optimum switching points for opening and closing the metering slides on the headlands for each fertiliser type and working width. Thanks to the spreading distance parameter of the fertiliser chart, OptiPoint can be adjusted quickly and easily for every application.

### **The OptiPoint advantage:**

In combination with GPS control the metering slides open and close fully automatically precisely at the optimum positions in the headlands.

### **The SpeedServo advantage: The AXIS-PowerPack becomes even more responsive**

The proprietary RAUCH SpeedServos provide impressive actuating times which are 2.5 times shorter than those of conventional servomotors. This makes AXIS-PowerPack even more responsive and powerful.

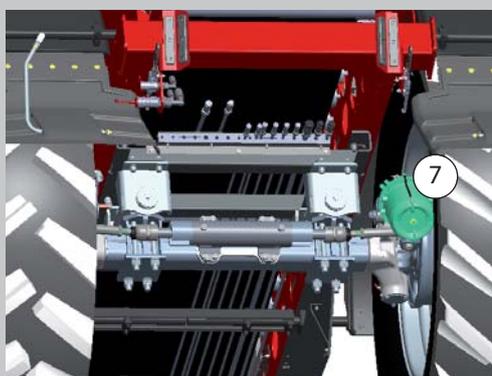
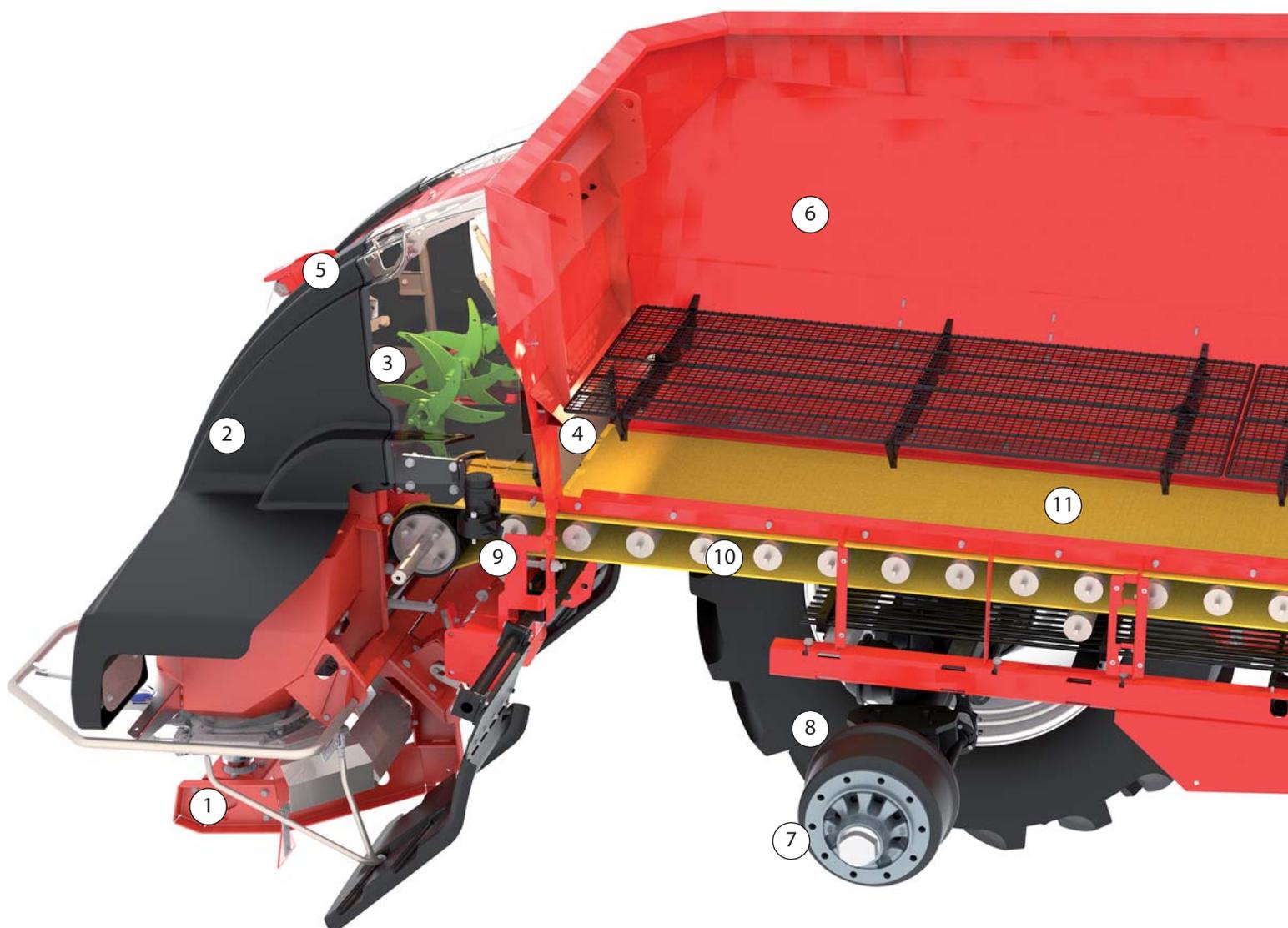
Spreading on wedge-shaped fields becomes even more accurate thanks to the extra fast adjustment of the working width and application rate. The simple and robust design of SpeedServos ensure that the practical requirements regarding a long service life and high operational safety under tough conditions are met in an ideal way.

Also with the OptiPoint headland control system, the extra fast SpeedServos increase the spreading precision in the headlands.

With the fully automatic, side-specific EMC automatic metering system the SpeedServos live up to their full speed potential. The EMC control commands at the metering slides on the right and left side separately are immediately implemented.

The result: SpeedServos and VariSpread allow an overall increase in efficiency in wedge-shaped fields of up to 20% compared to conventional servomotors. These are new performance dimensions in professional fertiliser technology.

# AXENT innovations



8 Kingpin steering (option) for track-consistent follow-up. The maximum steering angle depends on the track width.  
 2m track: 11°  
 2.25m track: 17°

- 1 AXIS-PowerPack
- 2 Maintenance flap with gas pressure spring
- 3 Comb roller
- 4 Metering slide
- 5 Rear view camera
- 6 Side panels optimised for a smooth flow of material with electric vibrator
- 7 Haldex Tristop pneumatic braking system
- 8 Kingpin steering with gyroscope control (option)
- 9 Hydraulic belt drive with traction-optimised surface
- 10 Load-bearing rollers
- 11 Wear-free rubber belt



- ⑫ Feeder meshes with quick release fastener
- ⑬ Lateral maintenance flaps with quick release fastener
- ⑭ ProTect double powder coating
- ⑮ Wedge-shaped access platform for smallest turning radii
- ⑯ Cleaning flap
- ⑰ Hose cabinet
- ⑱ Central body hydraulic pump with universal drive shaft
- ⑲ Towing bar suspension
- ⑳ Weigh cells for residual quantity display
- ㉑ Hydraulic support stand (double acting valve required)
- ㉒ Towbar in top or bottom hitching

# Clear benefits



## High profitability and efficiency

With AXENT only one large area spreader is required for mineral and organic fertilisation and lime spreading. This reduces the acquisition and maintenance costs.

The payload of 8.4tons allows a high daily output.

## Precision advantage

In mineral fertilisation, the AXIS-PowerPack offers all advantages of the innovative CDA spreading technology:

- Fully automatic fertiliser metering with EMC
- Fully automatic headland control system OptiPoint
- Continuous, GPS controlled VariSpread per section control.
- Spreading according to shape or ISO-XML application cards
- Use of standard N sensors

## Track-consistent follow-up

The optional steering axle with gyroscope control allows track-consistent follow-up on slopes and when changing tramlines. Large wheels with high quality tyres reduce the ground pressure.

## Elegant operating comfort

State-of-the-art ISOBUS universal terminal technology provides remote control of all important functions from the cabin.

The standard quick change system allows easy replacement of the PowerPack spreading modules without tools in only a few minutes.

## High-quality processing

The ProTect double powder coating and high-quality components preserve the value of the investment for many years.



# AXENT

## Technical data

Maximum fertiliser working load	8 400kg
Maximum hopper volume	9 400 litres
Empty weight	4 250kg without spreading module
Admissible total weight	13 000kg (12 000kg with top hitching)
Static load with bottom hitching	3 000kg
Static load with top hitching	2 000kg
Length	7.7m incl. spreading module
Total width	2.55m for 2.0m track
Overall height/filling height	3.15m/2.90m
Track widths	2.0m; 2.1m; 2.15m; 2.25m
Distance trailing ball – axle	5.0m bottom hitching; 4.61m top hitching
Tyres	520/85 R 42
Admissible maximum speed	40km/h
Spreading module weight	AXIS PowerPack 18 to 50m/300kg LIME-PowerPack incl. comb roller/350kg

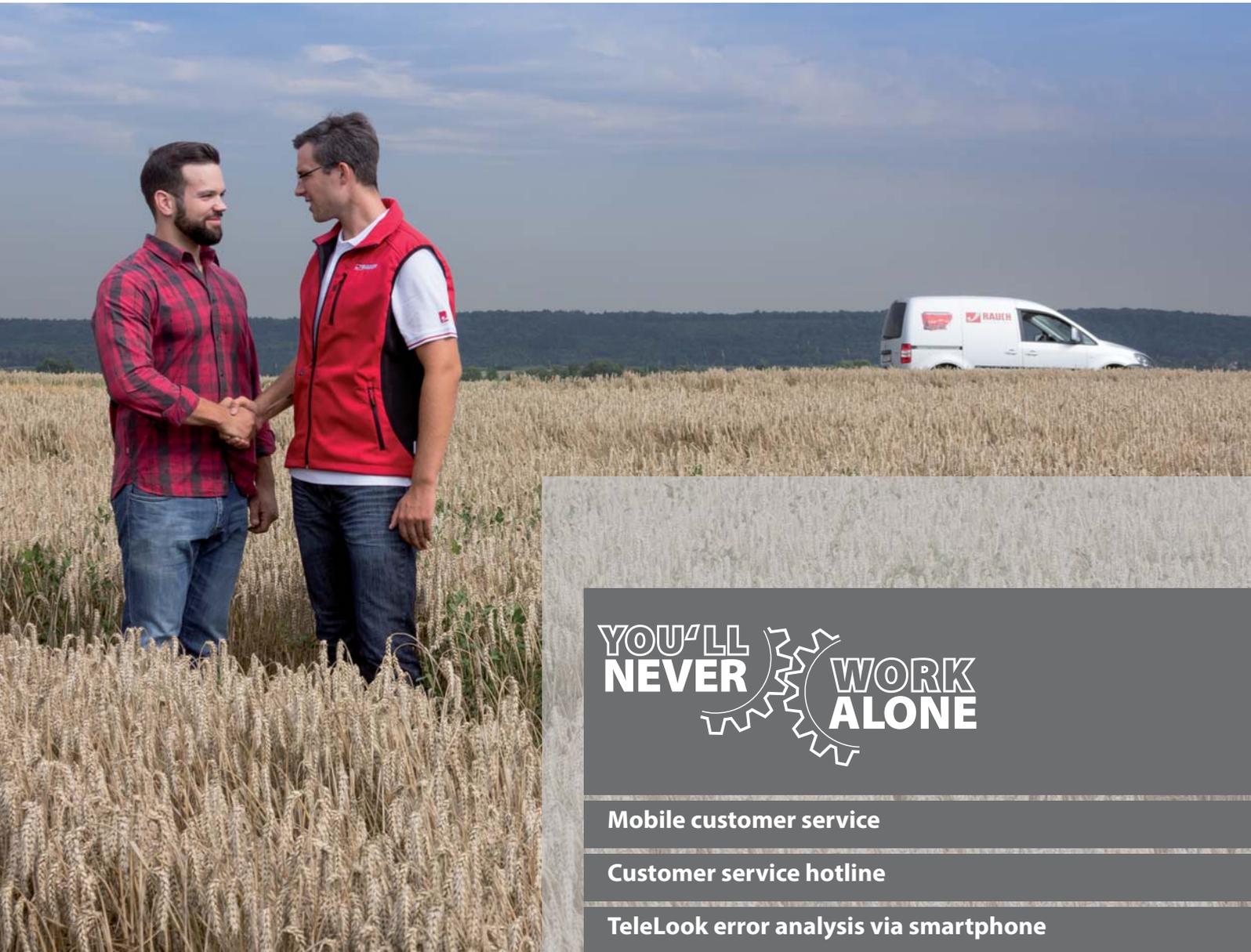
**Requirements for the tractor:** min. 180HP, 2-circuit compressed air braking system, 750rpm PTO shaft, 1 double acting hydraulic valve with hydraulic support stand, 1 double acting hydraulic valve for hopper cover

## Standard equipment

- ISOBUS electronics with CCI terminal
- On-board hydraulics for conveyor and spreading module
- Quick change system for spreading modules
- Hydraulic, remote-controlled hopper cover
- Hydraulic support stand
- 2-circuit compressed air braking system
- Feeder mesh
- Rear view camera
- Weighing unit for the residual quantity display

## Accessories

- AXIS-PowerPack
- Lime-PowerPack incl. comb roller
- Steering axle (only for bottom hitching)
- Top or bottom hitching
- CCI.Command with VariSpread and OptiPoint
- CCI.Task-Controller
- WiFi module: Communication with the RAUCH Fertilizer Chart app



**YOU'LL  
NEVER**  **WORK  
ALONE**

**Mobile customer service**

**Customer service hotline**

**TeleLook error analysis via smartphone**

**E learning**

**Test hall service**

**Double powder coating**

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