

FLEXIBLE IN EVERY DIMENSION

AXENT – THE ALL-ROUNDER FOR FERTILISER AND LIME

AXENT 100.1



POINT FOR POINT ON THE POSITIVE SIDE

QUALITY SETS NEW ACCENTS

SIDE PANELS OPTIMISED FOR A SMOOTH FLOW OF MATERIAL
with electric vibrator (option)

WEAR-FREE RUBBER BELT

PRE-METERING SLIDER CYLINDER

COMB ROLLER
(option)

REAR VIEW CAMERA

MAINTENANCE FLAP WITH GAS PRESSURE SPRING

HYDRAULIC BELT DRIVE
with traction-optimised surface

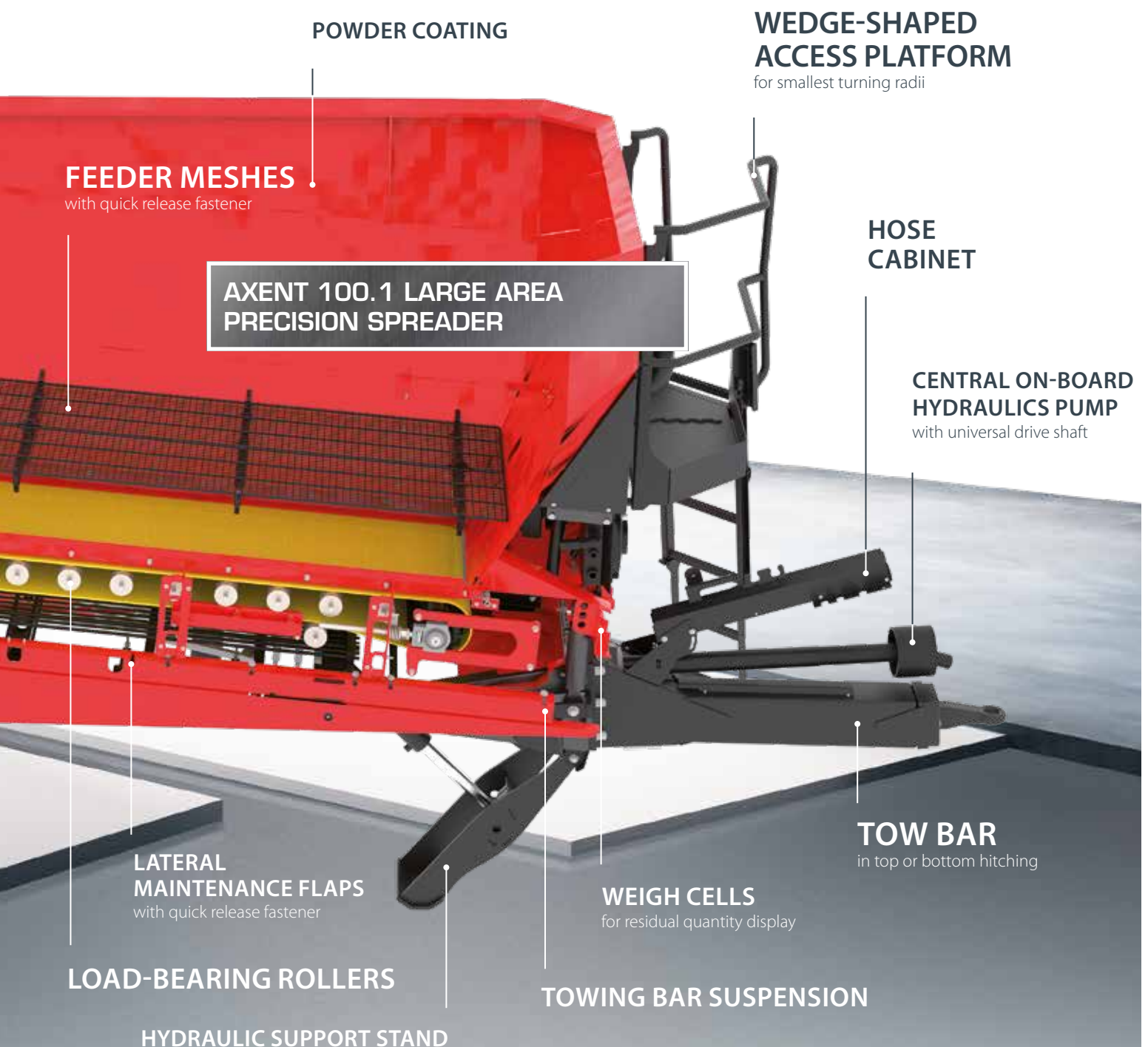
AXIS POWERPACK

TRISTOP PNEUMATIC BRAKING SYSTEM

Kingpin steering (option)
for track-consistent follow-up.



The economic efficiency and success of your operation depend on you fully utilising the yield potential of your cultivation areas. The AXENT 100.1 is a true multi-talent, combining high-precision, demand-based fertiliser application with mechanical efficiency. This is achieved via an entire package of future-oriented technologies and the clever ability to apply granular, pelleted, and floury fertilisers using the same machine. Utilise the lucrative potential of the large area spreader and develop greater security for the future using a fascinating machine.



BECAUSE LARGE AREAS NEED GREAT TECHNOLOGY – A DOUBLE DOSE OF AXENT EFFICIENCY



THE ALL-ROUNDER FOR FERTILISER AND LIME

AXENT precision fertiliser spreaders can be combined with **2 spreading modules**: The AXIS PowerPack allows highly precise spreading of granulated or pelleted fertilisers, the LIME PowerPack has been specially developed for wet lime and dry organic fertilisers. Both systems can be quickly converted for use on the same vehicle. A reliable **quick coupling** allows the spreading module to be exchanged in a few minutes. They reduce costs and save valuable time when spreading mineral or organic fertiliser.



AXIS POWERPACK – FOR PERFECT SOIL

The **hydraulically driven spreading module** ensures high precision spreading for even, demand-based fertiliser distribution that allows you get the best out of your cultivation area.

Technically clever: The belt conveyor system fills a pre-chamber above the spreader discs.

- ▶ **Precisely metered:** EMC, the unique, fully automatic electronic metering system, allows independent control of the left and right metering slides. This means exactly the correct amount of fertiliser required, always and everywhere.
- ▶ **Widely spread:**
A working width of up to 50 m provides time-saving efficiency.

LIME POWERPACK – FOR THE BEST GROWTH CONDITIONS

The special power unit for lime and organic fertilisers.

- ▶ **EMC ready:**
The LIME PowerPack for lime and other floury or organic fertilisers can be retrofitted with the smart EMC automatic metering system.
- ▶ **Fully automatic precision:**
The perfect online interaction of belt speed and the metering slides ensures that a constant application rate is maintained fully automatically. In parallel, AXENT is controlled depending on the forward speed.
- ▶ **Reduced losses:**
The AXENT hopper walls are optimised for a smooth flow of material with an electric vibrator and allow complete emptying of the spreader.
- ▶ **Quickly on the field:**
Two robust large diameter precision spreading discs allow a high spreading material throughput, even at high forward speeds.
- ▶ **Efficient lime spreading:**
Via the integrated, mechanical drop point adjustment the LIME PowerPack is adjusted to the spreading material and to working widths of up to 15 m.
- ▶ **Well-thought out conversion**
As well as the quick coupling of the spreading units, the practical quick-release fasteners on the container screens and the partition wall also accelerate the conversion of fertiliser to limestone.



Quick changing:
stainless steel hydraulic coupling
and central electronic quick coupling.

ON THE DOT PRECISION – AXIS INNOVATION

CDA SPREADING TECHNOLOGY

The CDA (**C**oaxial **D**osing and **A**ddjustment of drop point) system sets new standards in demanding practical applications. Whether fertiliser, slug pellets, bio-pellets or fine seeds in normal or late fertilising, the AXIS PowerPack convinces in every application with safe and precise spreading patterns.

SpeedServo for
drop point adjustment

SpeedServo for
quantity adjustment

AXIS DROP POINT ADJUSTMENT

The AXIS PowerPack makes adjustment easy. With the AXIS PowerPack, the spreading pattern can be adjusted comfortably and fully automatically by turning the feed point over the operating time.

The hydraulically driven spreading module ensures high precision spreading for even, demand-based fertiliser distribution that allows you get the best out of your cultivation area.

Technically clever: The belt conveyor system automatically fills a pre-chamber above the spreader discs. A metering slide provides target-oriented transfer to the spreader vanes – guaranteeing high precision.

SpeedServo

SpeedServo, the unique turbo-fast servo motors, have a very fast reaction time to provide more efficient metering and distribution.



Super-fast electrical drop point
adjustment with SpeedServo



With the unique CDA spreading technology, AXENT provides a spreading pattern of exceptional quality. Special efficiency is provided by large area coverage with high-speed spreading, easy operation and handling.

HIGH-SPEED FARMING

Even when things must be done quickly, the spreading precision must not suffer. Even at extremely high forward speeds above 20 km/h and with large working widths, the excellent AXIS spreading precision is preserved.

GRANUSAFE

Gentle on every grain. The AXIS GranuSafe system is gentle on the fertiliser granulate from the very start of spreading. The occurrence of broken grains and dust is actively minimised. The precise spreading properties are preserved even with sensitive spreading material.



Working widths



Urea	Potash granules	SSA	CAN (calcium ammonium nitrate)
NPK	Pellets	Slug pellets	Fine seeds

AXMAT DUO – SPREADS ALMOST BY ITSELF

▶ EVERYTHING IN VIEW –

With innovative radar technology

AXMAT duo instantly analyses the spreading pattern at high resolution. This is achieved through 54 radar sensors around the spreading discs and intelligent software. This immediately regulates to the correct values if the fertiliser grain size, ground slope, spreading shovel condition etc. have a deviating effect on the spreading pattern.

▶ EXTRA FAST –

Thanks to the SpeedServo

After once-only calibration with the practice test kit, the AXMAT duo regulates the spreading pattern by adjusting the drop point. This occurs via remote control and lightning-fast via SpeedServo servomotors. The EMC automatic metering system independently regulates the metering slides on the left and right sides. This ensures that no fertiliser is wasted and no section is under-fertilised.

▶ ALWAYS RELIABLE –

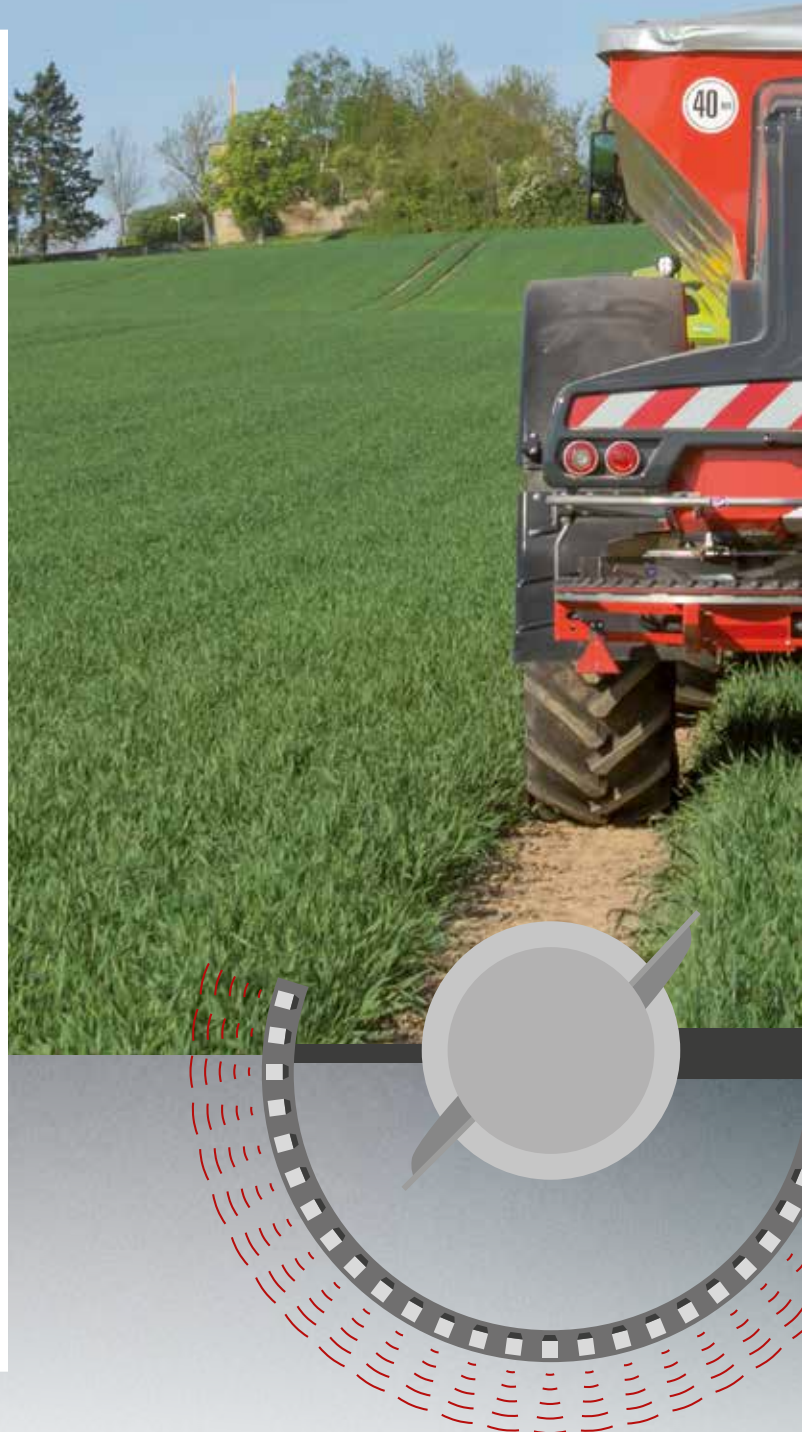
Through durable technology

The AXMAT duo has a wide application window for fertiliser granulates and only reaches its limits when the fertiliser quality, weather conditions or spreading discs make it impossible to work sensibly. The AXMAT sensors are completely encapsulated and cast in their casing to equip them for hard daily use.

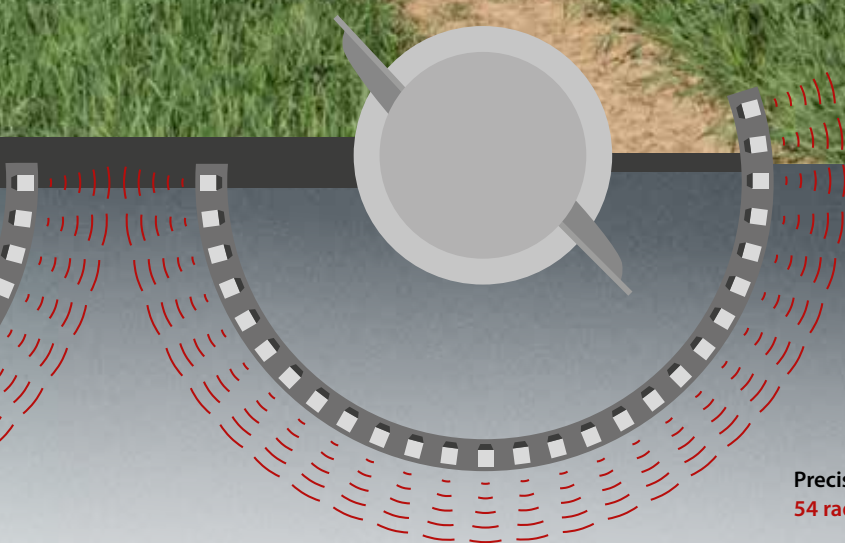
▶ EVEN MORE PRECISE –

With the application map

The system is especially efficient when used in conjunction with application maps created specifically for each field and allows exact specification of the quantities to be used.



Always and everywhere, the most accurate spreading pattern possible – fully automatically at all times. AXMAT duo offers nothing more and nothing less. The innovative automatic spreading pattern system reacts in seconds to external influences that you may not even notice. The result is a new dimension of performance in professional fertiliser technology.



Precise spreading pattern analysis via
54 radar sensors

EMC, THE METERING INNOVATION – AXIS POWERPACK

REGULATED TWICE AS WELL

One spreader, two metering systems: EMC stands for **E**lectronic **M**assflow **C**ontrol, a pioneering development from RAUCH. This system checks and regulates the fertiliser flow separately through the left and right metering slides. EMC is convenient, works without delay and is very precise.

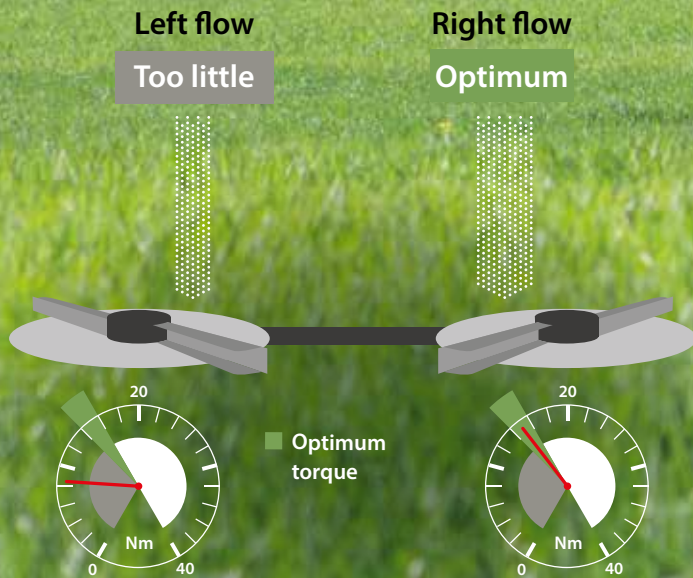
SIMPLY CLEVER

The fundamental principle of EMC is exact measurement of the spreading disc drive torques via contact-free sensors – as used in modern transport concepts such as e-bikes and Segways.

► Benefit from innovative technology

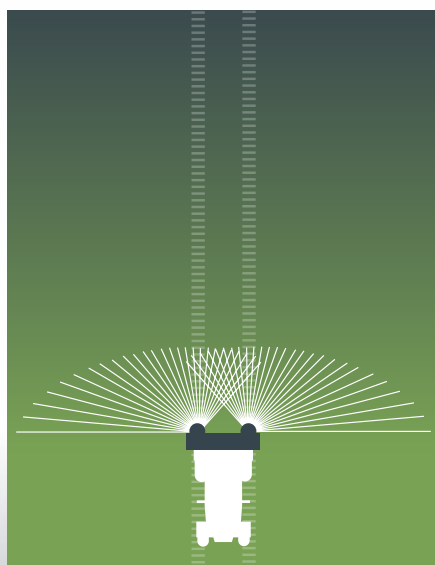
All functions can be electrically remotely controlled, reliably and safely with just one hand:

- Economical through highly accurate metering on each side
- Reliable performance: Regardless of slope characteristics and vibration influences
- Quick reaction to control commands: especially with the SpeedServo, variable working widths, non-sprouting tramlines and application maps are registered in seconds
- Reaction times up to 5-times faster: For greater metering accuracy, with less over-fertilising and fewer losses
- Improved clogging protection: The system reacts to irregularities quickly at the appropriate side and rapidly returns to the desired application rate

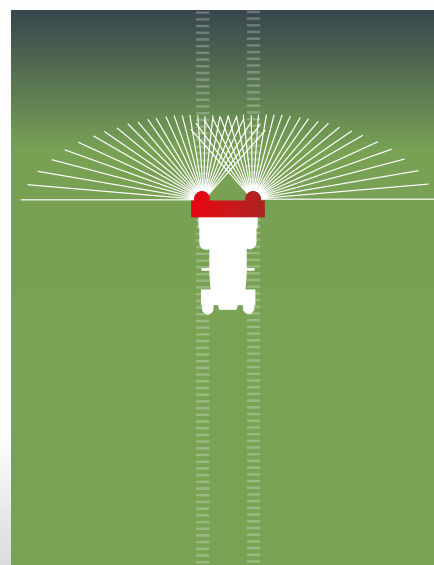


Classical weighing spreader

EMC spreader (EMC)



Weighing spreaders have a significantly longer reaction time.



EMC spreaders measure the spreading volume after only a few seconds/metres with high precision.

Calibration time/path

EMC spreaders react and regulate much faster

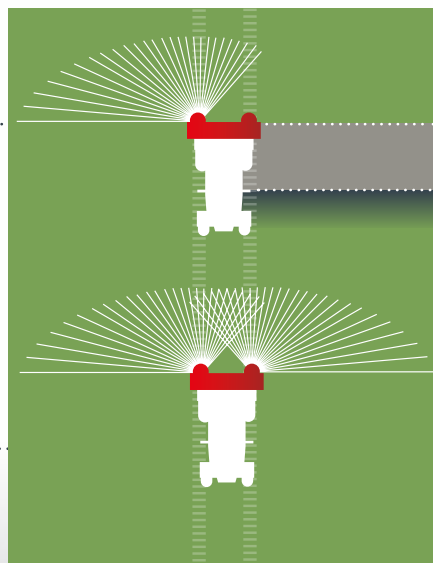
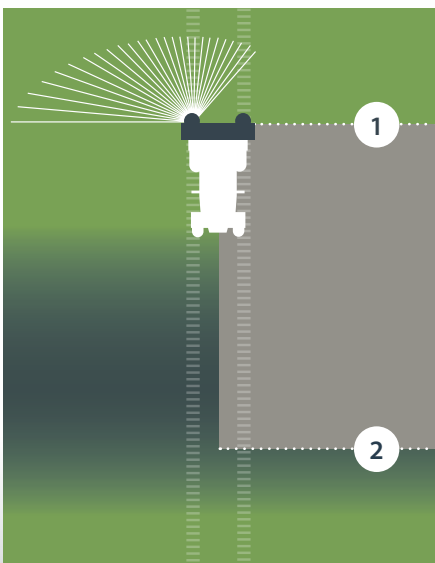


AXIS EMC - Torque measurement with magnetostriction sensors (known from e-bikes and Segways)



Classical weighing spreader

EMC spreader (EMC)



1 The left metering opening is clogged by a foreign object

2 The foreign object then falls through the metering opening

The weighing spreader requires a very long time to react. Both slides are adjusted simultaneously.

EMC reacts very quickly. After rapidly eliminating the foreign body, it regulates back to the correct application rate in a very short time.

- Over-fertilisation
- Under-fertilisation
- Optimum

VARIABLE PRECISION – VariSpread

*VariSpread PRO
Continuous regulation*

VariSpread pro

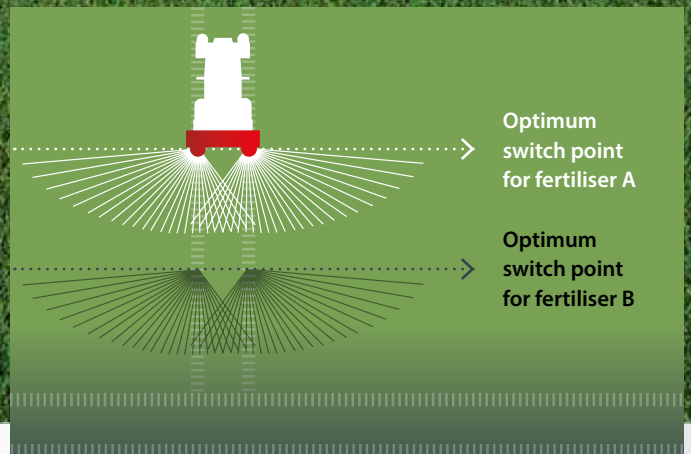
AXENT with the AXIS PowerPack and with **VariSpread pro** continuously adjusts the working width and application rate. They offer all the possibilities of modern section control:

- ▶ **Section control: Software for continuous regulation**
- ▶ **Spreading only in external areas**
- ▶ **Spreading beyond the centre**
- ▶ **Automatic adjustment for non-sprouting tramlines or when navigating around obstacles**
- ▶ **VariSpread dynamic becomes active already during field circling, if the field borders have been saved beforehand**
- ▶ **The 2.5-times faster SpeedServo servomotors further improve the fertiliser efficiency and preserve the environment**
- ▶ **VariSpread Pro detects un-spread corridors between two tramlines and spreads these with high precision**



AXIS with Section Control

VariSpread PRO
Segmented regulation



OPTIPOINT – HEADLANDS SWITCHING

Avoid over-fertilising or under-fertilising in the headlands! The clever OptiPoint headlands switch allows exact calculation of the switch-on and switch-off positions for every fertiliser type and spreading width. In conjunction with GPS control, the metering slides are then opened or closed at exactly the correct point. The adjustment occurs quickly and easily via the spreading distance parameter of the fertiliser chart.

THE OPTIMUM COMBINATION OF
POWER x SPEED

LIME-POWERPACK



AXENT is a precision fertiliser spreader designed for demanding farmers who care about the exact plant nutrition and sustainable soil fertility. The limestone spreading unit was designed for and by experienced growers, implemented by experienced machine builders and built for hard practical use.

LIME POWERPACK – FOR THE BEST GROWTH CONDITIONS

The special aggregate for humid fertiliser limestone, as well as for organic fertilisers such as dry poultry manure, dry sewage sludge, biogas digests and compost.

► The dual-purpose spreader

With the well-sealed rubber band and the optional steerable axle with high ground clearance, AXENT is ideal for high-precision spreading of mineral fertiliser. But with the 65 cm wide channel, the steep container geometry with a tear-off edge for optimum material flow, and an optional vibrator, AXENT is just as much a thoroughbred limestone spreader. This makes AXENT two machines in one.

► The precision spreader

At RAUCH, precision is also a priority in liming. Especially with partial area liming via GPS, the broad discharge spectrum from low 500 kg/ha up to 9,000 kg/ha is decisive. The volume control does not take place using a friction wheel subject to slip but using the vehicle speed-controlled electronics. The residual quantity scale makes it easy to monitor the correct application rate and document it via ISOBUS. Even when liming, AXENT automatically switches on and off with Section Control via GPS in the headland.

► The spreading unit

The LIME PowerPack is powered by hydraulic motors. Each spreader disc is individually hung on silent blocks. The spreading discs with a diameter of 700 mm are equipped with 5 reinforced throwing blades. For a perfect spreading pattern, the spreading table can be adjusted in position as well as the disc speed. The discs are easy to disassemble for cleaning via quick release. The basis for a uniform spreading pattern is the standard comb roller.



ISOBUS MADE EASY – EVERYTHING IN VIEW WITH CCI



CCI 800

CCI 1200



CCI ISOBUS

► The advantages are obvious

- No more compatibility problems on connection
- Improved operability
- Only one terminal in the driver's cab for a better overview
- Often lower costs

The **RAUCH CCI terminals** for the **ISOBUS spreader** are distinguished by clarity, flexibility and application diversity.

► Clear

Convenient 12.1 inch or compact 8 inch colour display

► Individual

Adjustable user interface that can be individually configured in portrait or landscape, split screen or maxi-view format by pressing a few touch screen buttons

► Intuitive

Logically structured, easily learned menu system

► Always available

Help system installed as standard with numerous examples of practical solutions in graphical or text formats

► Keeping pace with the times

Optional WLAN module for networking with the convenient RAUCH fertiliser chart app and the whole world of digital farming

► Tailor-made

Increased spreading efficiency through GPS applications for the section and headland control system and variable fertiliser spreading with application cards

The ISOBUS system makes life easier for the farmer. This defines a unified connection standard allowing various different devices to be controlled from a single terminal in the tractor.



CCI A3

After plugging in the AUX N interface, the corresponding symbols for operating the unit are shown on the small touch screen. The driver can thus always see which functions he/she has stored here.

CCI apps

Already integrated:



CCI.Convert
Serial interface for connection of e.g. N sensors (only in conjunction with CCI.Control)



CCI.Tecu
tractor data

Optionally available:



CCI.Control
Documentation and job management



Section Control
Automatic section control



Parallel Tracking
Parallel driving aid

Matching accessories for even more efficiency



Operation: The joystick eases operation



Network: WLAN module for communication with the RAUCH fertiliser chart app



Recipient: AGstar DGPS for precise position determination



Controls: AXMAT duo controls and regulates the spreading pattern with radar support



Safety: Nothing escapes the rear view camera



Brightness: SpreadLight turns night into (work) day



AXENT

Maximum fertiliser working load	8,400 kg
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	3,000 kg
Static load with top hitching	2,000 kg
Length	7.7 m incl. spreading module
Overall width	2.55 m for 2.0 m track
Overall height/filling height	3.15 m/2.90 m
Track widths	2.00 m; 2.10 m; 2.15 m; 2.25 m
Distance trailing ball – axle	5.00 m bottom hitching; 4.61 m top hitching
Tyres	520/85 R 42
Admissible maximum speed	40 km/h
Spreading module weight	AXIS-PowerPack 18 to 50 m/350 kg LIME-PowerPack incl. comb roller/350 kg

Tractor requirements: Min. 180 HP, 2-circuit compressed air braking system, 750 rpm PTO shaft, 1 double acting hydraulic valve for the hydraulic support stand, 1 double acting hydraulic valve for hopper cover

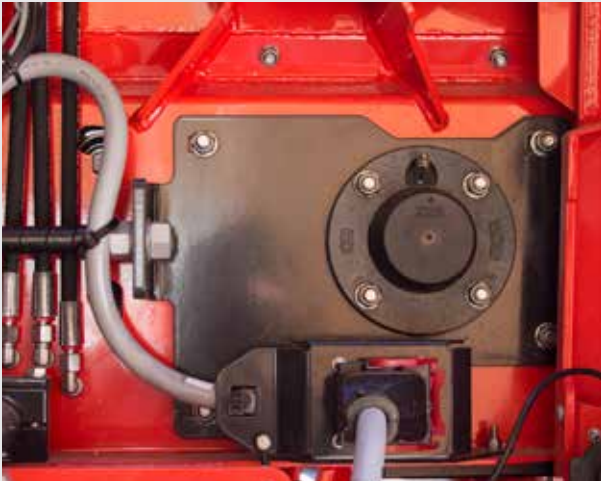
Standard equipment	<ul style="list-style-type: none"> • ISOBUS electronics with job computer • On-board hydraulics for conveyor belt and spreading module • Quick-change system for spreading modules • Hydraulically remote-controlled hopper cover • Hydraulic support stand • 2-circuit compressed air braking system • EU type approval • Feeder mesh • Rear view camera • Weighing unit for the residual quantity display
Accessories	<ul style="list-style-type: none"> • AXIS-PowerPack • LIME-PowerPack incl. comb roller • Steering axle (only for bottom hitching) • Top or bottom hitching • CCI. ISOBUS terminals (CCI.1200 and CCI.800) • CCI.Command with VariSpread and OptiPoint • CCI.Task Controller • WLAN module: Communication with the RAUCH fertiliser chart app



AXENT is available with top or bottom hitching, as desired



A steering axle (kingpin steering) is available as an optional extra



Sealed belt shaft bearing and quick coupling for the spreader unit electronics



The hopper cover reliably protects the spreading material and can be effortlessly opened



The hydraulic support stand provides quick and reliable stabilisation



Maintenance flap with gas pressure spring



RAUCH Homepage

A great deal of additional useful information
is available on the RAUCH website

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