

FLEXIBLE IN ALL DIMENSIONS

AXENT – THE ALL-ROUNDER

AXENT



PRECISION MEETS POWER INGENIOUSLY SIMPLE

SLIP-OPTIMISED SIDE PANELS

**FOLDING
ACCESS LADDER**

HOSE CABINET

CARDAN SHAFT DRIVE
with overload protection

**TOW BAR FOR BOTTOM
HITCHING**

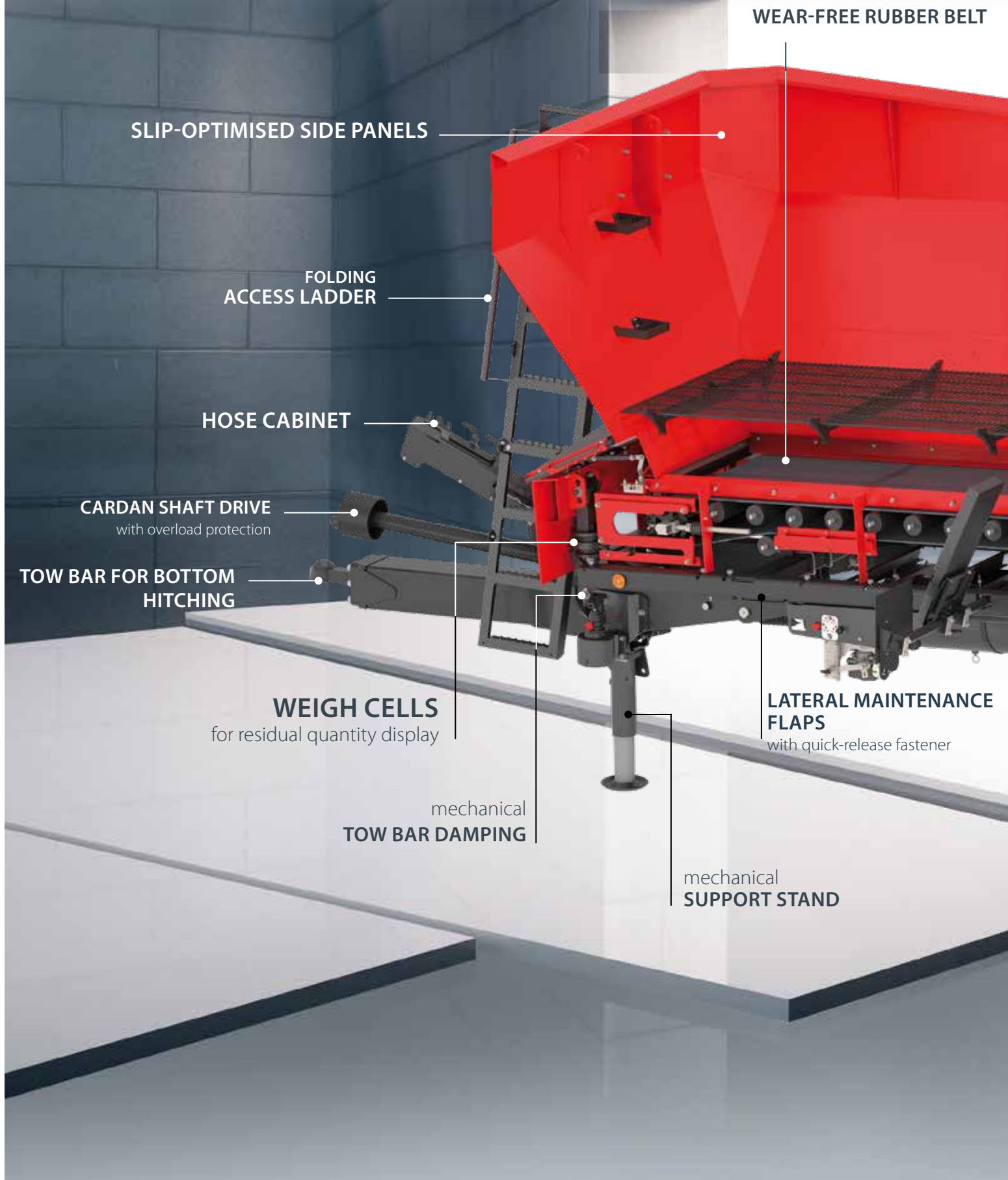
WEIGH CELLS
for residual quantity display

mechanical
TOW BAR DAMPING

WEAR-FREE RUBBER BELT

**LATERAL MAINTENANCE
FLAPS**
with quick-release fastener

mechanical
SUPPORT STAND



AXENT 90.1 is the perfect combination of efficiency, low ground pressure and maximum spreading precision. The potential of AXENT 100.1 has been consistently implemented here in an optimised price class. With the attached AXIS spreading technology, you benefit from all RAUCH advantages in one go: EMC automatic metering system, GPS Control, VariSpread and OptiPoint, combined with a simple cardan shaft drive with overload protection.

PROTECTIVE GRID

with quick-release fastener

POWDER COATING

PRECISION LARGE AREA SPREADER AXENT 90.1

manually adjustable
PRE-METERING SLIDE

quick-locking
MAINTENANCE FLAP

**LOAD-BEARING
ROLLERS**

AXIS SPREADING TECHNOLOGY

**TRISTOP PNEUMATIC
BRAKING SYSTEM**

**HYDRAULIC BELT
DRIVE**

via tractor control unit

RIGID AXLE

optional steering axle

HIGHLIGHTS IN THE SPOTLIGHT – EVERYTHING IMPORTANT ON BOARD



High ease of use due to electric drop point adjustment for a variable section adjustment (optional)



The cover of the spreader unit can be removed for easy cleaning of the machine.

ROBUST TECHNOLOGY

Just like its big brother, AXENT 100.1, AXENT 90.1 provides a spreading pattern of exceptional quality with its unique CDA spreading technology. In a basic version, it has all the essentials on board with the permanently mounted AXIS spreader. The AXENT 90.1 has a cardan shaft drive, is robust and easy to operate.

- ▶ **High precision with integrated RAUCH technology**
- ▶ **Quick adjustment by simple hand movements**
- ▶ **Intuitive menu navigation makes operation so easy**
- ▶ **The large volume reduces empty runs**
- ▶ **Unbeatable value for money for maximum cost optimisation**



TELIMAT border spreading unit for precise spreading from the first track



Fold-out and robust stand



Safe driving comfort with the Tristop brake system



Easy access due to folding access ladder



Simple inspection and cleaning due to easily accessible maintenance flap



Optional: steering axle

PRECISION TO THE POINT – AXENT INNOVATION

CDA SPREADING TECHNOLOGY

For demanding practical applications, the coaxial metering and drop point adjustment (= **CDA**) sets standards. Whether fertiliser, slug pellets, bio pellets or fine seeds in normal or late fertilising, AXIS PowerPack convinces in every application with reliable and precise spreading patterns.

SpeedServo
for drop point adjustment

SpeedServo
for quantity adjustment

AXIS DROP POINT ADJUSTMENT

AXIS PowerPack makes fertiliser spreading easy. With AXIS PowerPack, the spreading pattern is adjusted easily and fully automatically via the control terminal by turning the drop point.

The hydraulically driven spreading module ensures high spreading precision and thus even, requirement-based fertiliser distribution, allowing you to get the most out of your land.

Technically ingenious: the belt conveyor system automatically fills a pre-chamber which is located above the spreader discs. A metering slide ensures selective transfer to the spreader vanes - a guarantee for higher precision.

SpeedServo

Metering and distribution are made particularly responsive and thus even more efficient, by SpeedServos, the unique turbo-fast servo motors.



Super fast electric drop point
adjustment with SpeedServo



AXENT 90.1



AXENT 100.1

With its unique CDA spreading technology, AXEO provides a spreading pattern of exceptional quality. The high area output with high-speed spreading, easy operation and handling also ensure special efficiency.

HIGH-SPEED FARMING

When speed is important, spreading precision must not suffer. Even at extremely high forward speeds above 20 km/h and with large working widths, the excellent AXENT spreading precision is retained.

GRANUSAFE

Grain by grain gently. The GranuSafe system is gentle on the fertiliser granulates from the very beginning. The occurrence of broken grains and dust is actively minimised. The precision-decisive spreading properties are retained even with sensitive spreading material.



Working widths



Precision spreading discs with VXR coating enable up to 4 times longer service life.



Urea

Potash granules

AMS

CAN



NPP

Pellets

Slug pellets

Fine seeds

EMC, THE METERING INNOVATION – AXIS POWERPACK

TWICE AS WELL CONTROLLED

One spreader, two metering systems: EMC stands for **E**lec-tronic **M**assflow **C**ontrol, a groundbreaking development by RAUCH. The system controls and regulates the fertiliser flow on the right and left metering slides separately. EMC is easy to use, works without delay and is very accurate.

SIMPLY INGENUOUSLY MADE

The basis of EMC is the precise recording of the spreader disc drive torques via non-contact sensors - as are also the basis of contemporary mobility concepts of e-bikes and Segways.

► Benefit from innovative technology

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

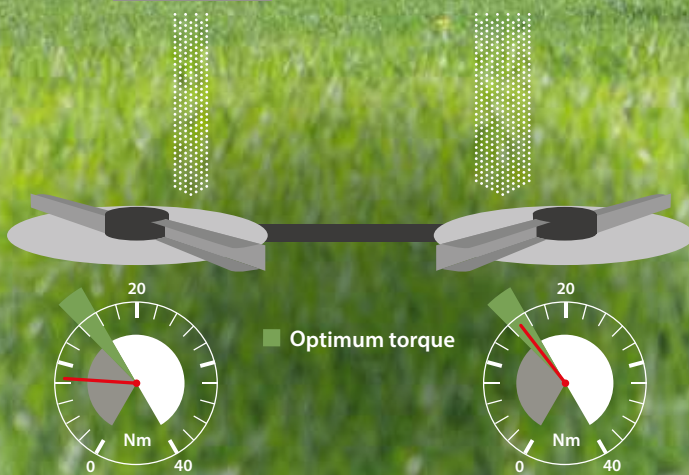
- Efficient due to highly accurate metering on each side
- Reliable performance: independent of slopes and vibration influences
- Fast response to control commands: in particular with SpeedServo, variable working widths, tracks coming not out even and application maps are recorded in seconds
- Up to 5 times shorter adjustment times: for higher metering accuracy with less over-fertilisation and lower losses
- Better clogging protection: The system adapts quickly and accurately to irregularities and quickly returns to the desired application rate

Flow on the left

Flow on the right

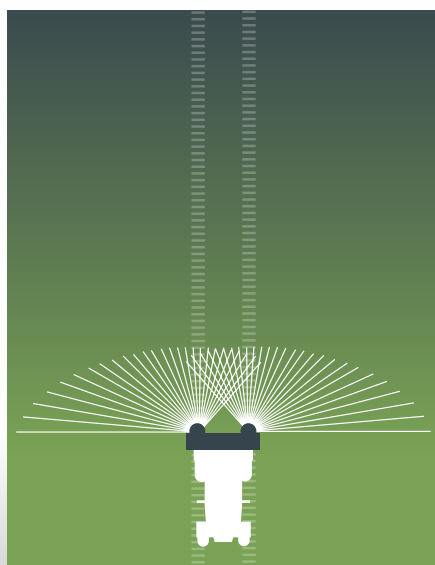
Too little

Optimum

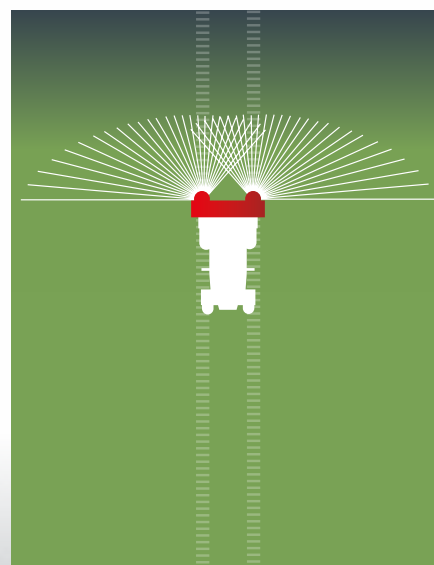


Classic weighing spreader

EMC spreader



Weighing spreaders have a significantly longer reaction time.



EMC spreaders measure the metering quantities after only a few seconds/metres with high precision.

Calibration time/path

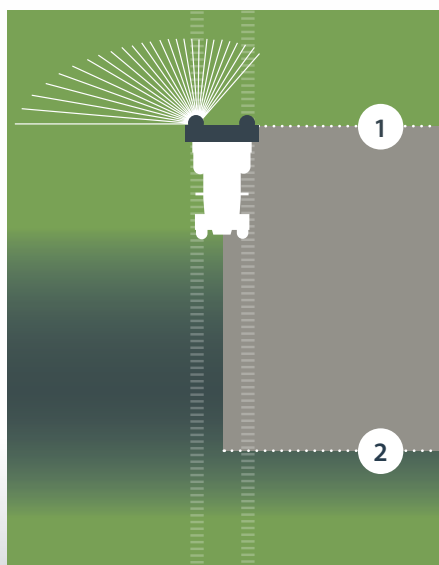
EMC spreaders react and regulate much faster



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

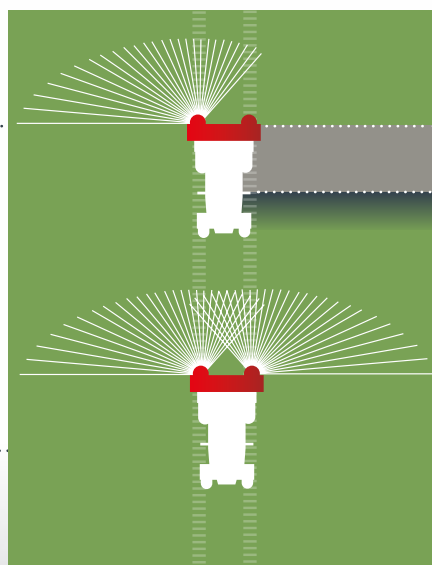


Classic weighing spreader

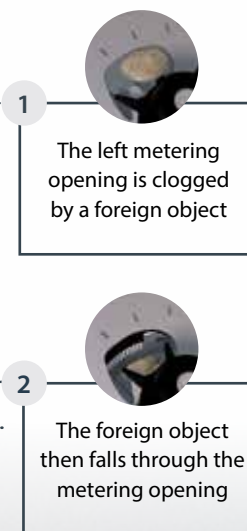


The weighing spreader requires a very long time to react. Both slides are always adjusted simultaneously.

EMC spreader



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

ADJUSTABLE PRECISION

VariSpread



VariSpread pro

AXENT with the AXIS PowerPack and with **VariSpread pro** adjusts the working width and application rate in a continuous process. It thus offers all the options of modern section control:

- ▶ **Section Control: Software for continuously variable control**
- ▶ **Spreading only in external areas**
- ▶ **Spreading beyond the centre**
- ▶ **Automatic adjustment for tracks coming not out even or when navigating around obstacles**
- ▶ **VariSpread pro becomes active already during field circling.**
- ▶ **With the 2.5 times faster SpeedServo servo motors, fertiliser efficiency is improved yet again and the environment is protected**
- ▶ **VariSpread pro detects non-spread corridors between two tracks and spreads them with high precision (segmented regulation)**



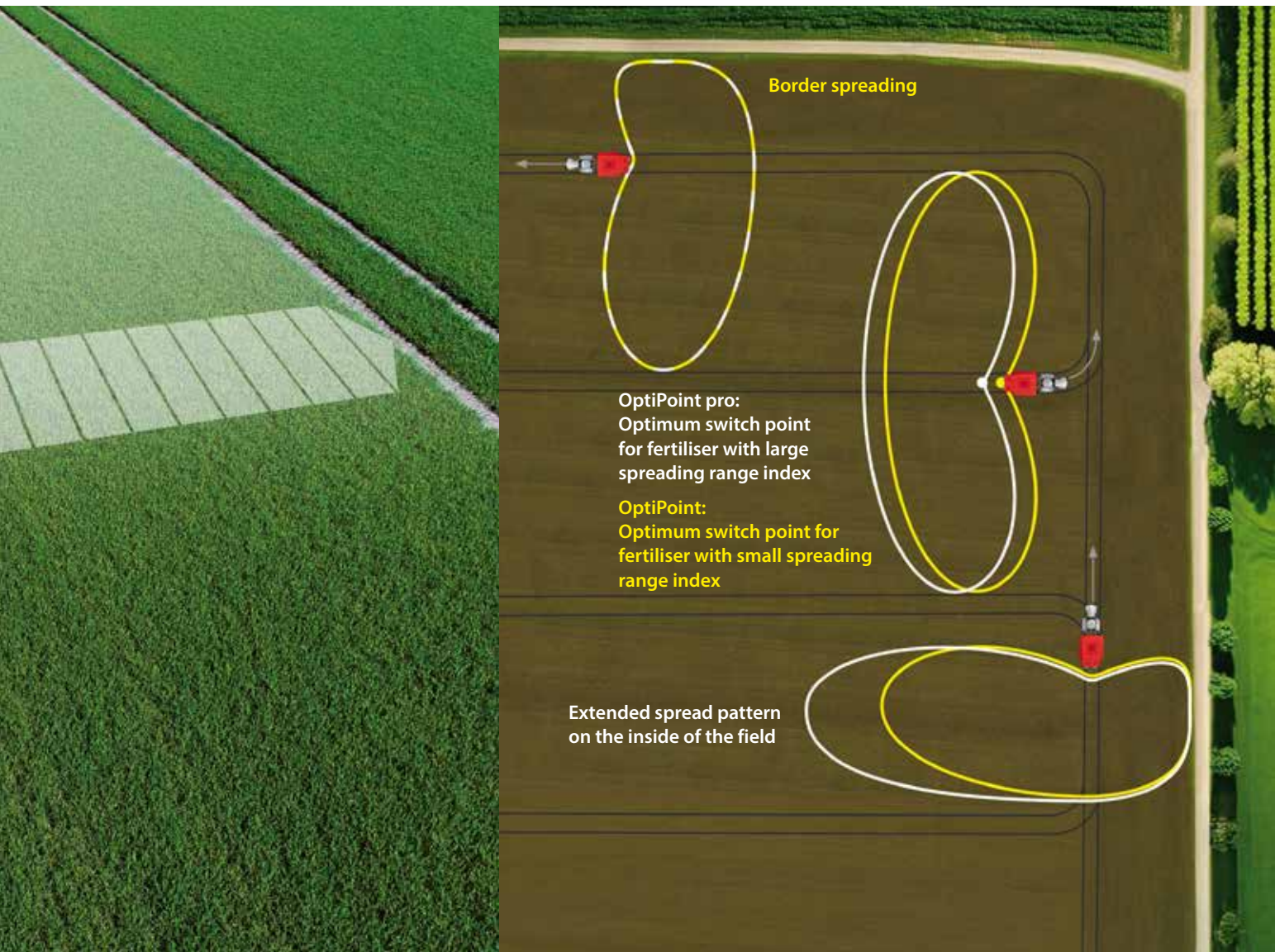
AXENT mit Section Control.

VariSpread V8

AXENT M 90.1 with manual CDA feed point adjustment is equipped with 8-fold section control as standard. With this alternative to VariSpread pro, four sections per side can be implemented by remotely adjusting the metering slide positions.

PRECISION ON THE DOT

OptiPoint / OptiPoint pro+



OPTIPOINT CLEAR ADVANTAGES

- OptiPoint adapts flexibly to different fertiliser types and field sizes.
- Minimisation of spreading errors at headlands. Higher yields.
- Efficient fertiliser use at headlands.
- The metering slides are automatically opened or closed at the optimum switching point when entering and exiting the headland.

OPTIPOINT PRO+ HEADLAND CONTROL

More control and quality

OptiPoint pro+ analyses the spread pattern, field geometry and specific fertiliser properties. Based on this data, the system automatically calculates:

- the optimum point when entering the headland
- the perfect adjustment of the fertiliser quantity and spreading behaviour in the headland area
- the exact switch-off point when exiting the headland tramline
- field-specific documentation in the terminal
- no driving over the headland tramline, protecting the crops in the headland

ISOBUS QUITE EASY – AN EYE ON EVERYTHING WITH CCI

ISOBUS CCI

► The benefits are obvious

- No more compatibility problems when connecting
- Improved operability
- Better overview in the driver's cab thanks to only one terminal
- Frequently lower costs



CCI 800



CCI 1200

The **RAUCH CCI terminals** for the **ISOBUS spreaders** are characterized by their clear arrangement, flexibility and a wide range of application options.

► Clearly arranged

Convenient 12.1 inch or compact 8 inch colour display

► Individual

Customisable user interface that can be configured individually with just a few touches in landscape or portrait format, as split screen or Maxiview

► Intuitive

Logically structured menu that can be learned immediately

► Always with you

Help app installed as standard with practical solutions in graphic or text format

► In touch with the latest trends

Optional WLAN module for networking with the easy-to-use RAUCH fertiliser chart app and the whole world of digital farming

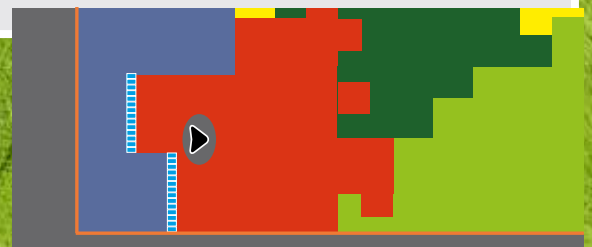
► Customised

GPS applications for the section and headland control system and variable fertiliser spreading with application maps increase spreading efficiency.

► CORNERCONTROL

Optimises fertiliser distribution in field corners

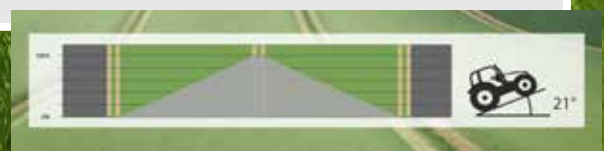
Spreading errors are minimised by individually adjusting the spread pattern characteristics (spreading width and spreading rate) on the boundary spreading side. CornerControl is available as standard for AXENT 100.1.



► HILLCONTROL

Optimises fertiliser distribution on slopes

Influences on the spread pattern during extreme ascents or descents are compensated for fully automatically. HillControl also optimises distribution accuracy on side slopes. This ensures optimum plant nutrition on extremely steep slopes. HillControl is available for all AXENT models with VariSpread pro.



The ISOBUS system makes life easier for farmers. It defines a consistent connection standard that enables the control of various different devices via a single terminal in the tractor.



CCI A3

The corresponding symbols for device operation appear on the small touch display after plugging it into the AUX-N interface. The driver thus always recognizes which function has been stored here.

CCI apps

Already integrated:



CCI.Convert
Serial interface for connecting e.g. N sensors (only in combination with CCI.Control)



CCI.Tecu tractor data

As an option:



CCI.Control
Documentation and job management



Section Control
Automatic section control



Parallel Tracking
Parallel driving aid



CCI.Assist
Assistance program and range indication

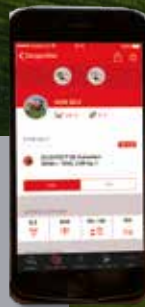
Coordinated accessories for even more efficiency



Operation: the joystick makes controlling easier



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



Receiver: DGPS for precise position determination



CCI.Assist: Assistance program and range indication



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



Safety: the rear-view camera hardly misses anything (Currently only available with AXENT 100.1)



Brightness: SpreadLight turns the night into (working) day



POINT FOR POINT IN THE POSITIVE RANGE QUALITY SETS THE TONE

SLIP-OPTIMISED SIDE PANELS
with electric vibrator (option)

PRE-METERING SLIDE

COMB ROLLER
(option)

WEAR-FREE RUBBER BELT

REAR-VIEW CAMERA

**MAINTENANCE FLAP
WITH GAS PRESSURE
SPRING**

HYDRAULIC BELT DRIVE
with traction-optimised surface

AXIS POWERPACK

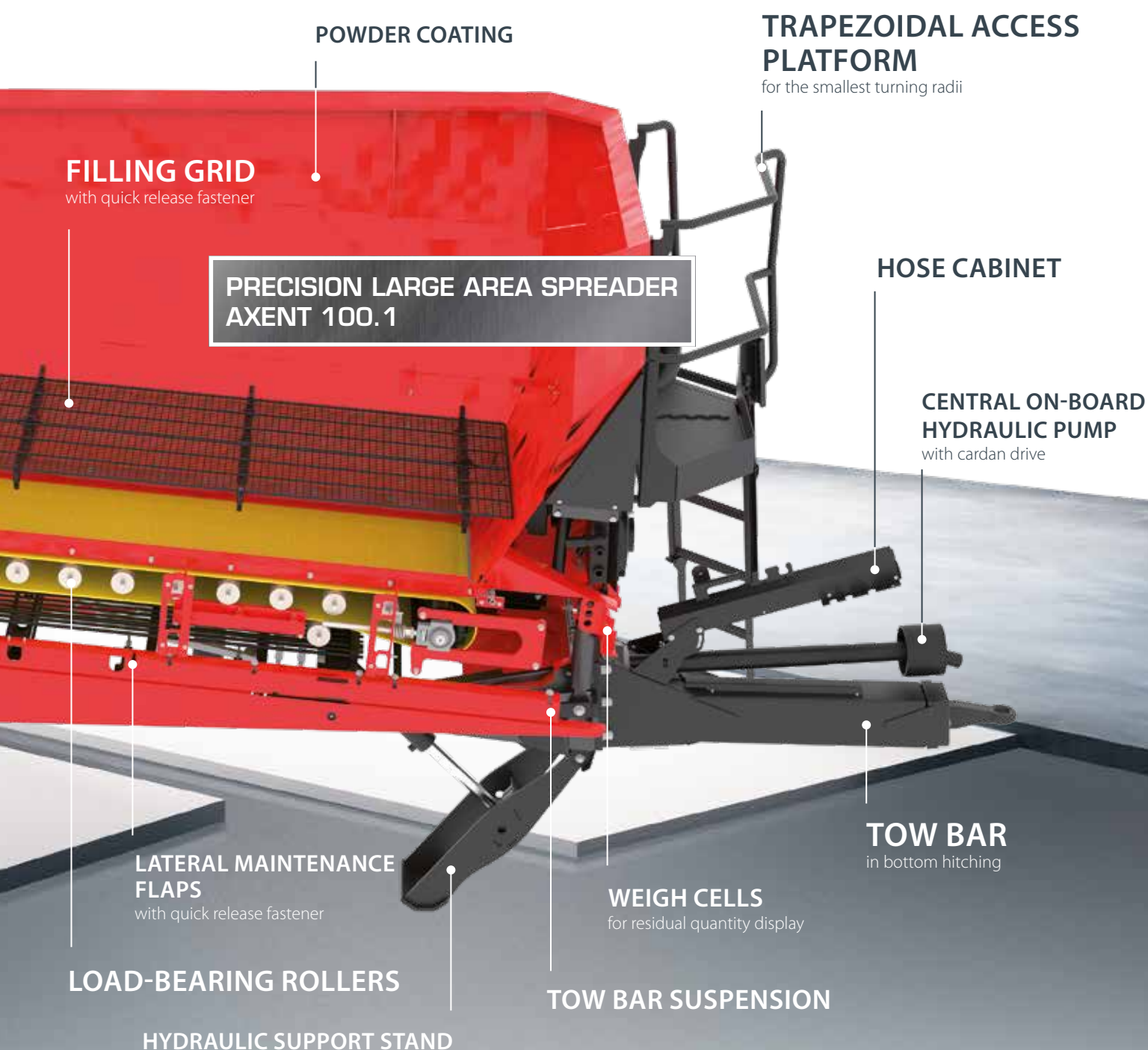
RIGID AXLE
optional steering axle

**TRISTOP PNEUMATIC
BRAKING SYSTEM**

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



The economic efficiency and success of your farm depend decisively on the full exploitation of the yield potential of your land. AXENT 100.1 is a real all-rounder that combines high-precision, requirement-based fertiliser application with machine efficiency. This is ensured by a full package of forward-looking technologies and the ingenious option of applying granulated, pelletised and flourey fertilisers with one and the same machine. Make use of the lucrative potential of the large area spreader and develop more future security with a fascinating machine.



BECAUSE LARGE AREAS NEED EXCELLENT TECHNOLOGY – AXENT EFFICIENCY IN DOUBLE ACT



ALL-ROUNDER FOR FERTILISER AND LIME

AXENT precision fertiliser spreaders can be combined with **two spreading modules**: the AXIS PowerPack enables the high-precision spreading of granulated and pelletised fertilisers, and the UNIVERSAL PowerPack was specially developed for moist lime and dry organic fertilisers. Both can be converted on the same vehicle within a very short time. Reliable **quick couplers** mean the spreader module can be changed in a matter of minutes. You save costs and valuable time when applying mineral or organic fertilisers.



AXIS POWERPACK - FOR THE PERFECT FERTILE SOIL

The hydraulically driven spreading module ensures high spreading precision and thus even, requirement-based fertiliser distribution, allowing you to get the most out of your land.

Technically ingenious: the belt conveyor system fills a pre-chamber which is located above the spreader discs.

- ▶ **Precisely metered:** EMC, the unique, fully automatic metering electronics enables independent control of the left and right metering slides. This means always and everywhere exactly as much fertiliser as necessary.
- ▶ **Broadly positioned:**
A working width of up to 50 m ensures time-saving efficiency.

UNIVERSAL POWERPACK – FOR THE BEST GROWING CONDITIONS

The special unit for lime and organic fertilisers.

- ▶ **EMC ready:**
The 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. At the same time, AXENT is controlled depending on the forward speed.
- ▶ **Reduction of losses:**
The AXENT hopper walls are optimised for a smooth flow of material with an electric vibrator and enable complete emptying of the spreader.
- ▶ **Fast on the land:**
Two robust large diameter precision spreader discs allow a high spreading material throughput, even at high forward speeds.
- ▶ **Efficient liming:**
Via the integrated, mechanical feed point adjustment, the UNIVERSAL PowerPack is adjusted to the spreading material and the working width up to 15m.
- ▶ **Ingenious conversion**
In addition to the quick coupling of the spreaders, the practical quick-release fasteners on the hopper sieves and the partition wall also speed up the conversion from fertilising to liming.

Change done quickly:
stainless steel hydraulic coupler and
central electronic quick coupler.

THE OPTIMUM OF FORCE x SPEED

UNIVERSAL POWERPACK



UNIVERSAL POWERPACK – EMC TECHNOLOGY

EMC - controls the application rate

- The long-standing, established EMC technology has now also been integrated into the UNIVERSAL PowerPack. Pressure sensors determine the torque and distribute the lime quantity and other spreading materials on the field in a controlled manner according to your requirements. This means more metering precision even with lime or similar spreading materials.



AXENT is a precision fertiliser spreader designed for ambitious farmers who care deeply about accurate crop nutrition and sustainable soil fertility. The lime spreader was designed for and by experienced crop farmers, implemented by accomplished mechanical engineers and built for tough practical use.



UNIVERSAL POWERPACK – FOR THE BEST GROWING CONDITIONS

The special unit for earth-moist fertiliser lime and for organic fertilisers such as dry poultry manure, dry sewage sludge, biogas fermentation residues and compost.

► The dual-application spreader

With its well-sealed rubber belt and optional steerable axle with high ground clearance, AXENT is ideal for the high-precision spreading of mineral fertiliser. However, with the wide channel of 65 cm, the steep hopper geometry with tear-off edge that ensures optimum material flow and an optional vibrator, AXENT is also a thoroughbred lime spreader. AXENT is thus two machines in one.

► The precision spreader

For RAUCH, the focus is also on precision when it comes to liming. The broad application range from a low 500 kg/ha to 9,000 kg/ha is decisive, especially for liming with GPS. The quantity is not controlled by a friction wheel that is prone to slippage, but rather by the speed-controlled electronics. The residue weigher makes it easy to monitor the correct application rate and document it via ISOBUS. AXENT is also switched on and off automatically during liming with Section Control via GPS on the headland.

► The spreading unit

The UNIVERSAL PowerPack is driven by hydraulic motors. Each spreading disc is individually attached to silent blocks. The spreading discs with a diameter of 700 mm are equipped with 5 reinforced spreading vanes. For a perfect spreading pattern, the spreading table can be adjusted in position as well as the disc speed. The discs can be easily removed for cleaning by means of a quick-release fastener. The standard comb roller is the basis for a consistent spreading pattern.

AXMAT DUO – SPREADS AS IF BY ITSELF

► EVERYTHING UNDER CONTROL –

With innovative radar technology

AXMAT duo analyses the spreading pattern with high precision at all times. This is ensured by 54 radar sensors for the spreader discs and an intelligent software. It immediately adjusts to the correct values if fertiliser granulation, slope inclination, spreading vane condition, etc. influence the spreading pattern in a deviating manner.

► EXTRA FAST –

Thanks to SpeedServo

After one-off calibration with the practical test set, AXMAT duo controls the spreading pattern by adjusting the drop point. This is done via remote control and extremely fast via SpeedServo servo motors. With the EMC automatic metering system, the left and right metering slides are controlled separately. Thus, no fertiliser is wasted and no partial area is undersupplied

► ALWAYS RELIABLE –

Due to robust technology

AXMAT duo has a wide application range for fertiliser granules and a robust technology that only reaches its limits when fertiliser quality, weather conditions or spreader discs make practical work impossible. The AXMAT sensors are fully encapsulated and cast, and thus equipped for tough everyday use.

► EVEN MORE PRECISE –

With application map

The system is particularly efficient when used with application maps, which are created specifically for each field and give an exact quantity specification.



Precise spreading pattern analysis via
54 radar sensors

Always and everywhere the most correct spreading pattern possible - at all times and fully automatically. AXMAT duo offers you no more and no less. The innovative automatic spreading pattern reacts within seconds to external influences that you might not even notice. The result is a new performance dimension in professional fertiliser technology.



AXENT axle with bottom hitching



A steering axle (kingpin steering) is part of the optional equipment



Sealed belt shaft bearing and quick coupler for the spreader electronics



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



The hydraulic support stand ensures quick and reliable stabilisation



Maintenance flap with gas pressure spring

AXENT 90.1

Maximum fertiliser payload	8,400 kg
Maximum hopper volume	9,600 litres
Empty weight	4,000 kg
Permissible total weight	13,000 kg
Static load with top hitching	2,000 kg
Length	7.7m incl. spreading module
Overall width	2.55 m to 3.0 m (depending on track and tyres)
Overall height/filling level	3.10 m to 3.20 m (depending on tyres)
Track widths	2.0 m, 2.10 m, 2.15 m, 2.25 m, 2.40 m
Distance trailing ball – axle	5.00 m bottom hitching; 4.61m top hitching
Tyres	520/85 R 42
Permissible maximum speed	40 km/h

Tractor requirements: 1 double acting hydraulic valve for the belt, 1 double acting for the hopper cover and 1 single acting hydraulic valve for the TELIMAT

Standard equipment	• ISOBUS large area spreader with rigid axle (without control terminal) • Weigh cells • Cardan shaft with overload clutch • Compressed air brake system according to (EU) Directive 167/2013 • Mechanical pre-metering slide • Cardan drive for spreading unit • Mechanical tow bar damping • Lighting system with warning sign at the rear and front in accordance with (EU) Directive 167/2013 • Draw bar for lower hitching, ball head coupling K80 • 520/85 R42 tyres 2.25 m track width • Max. transport speed 40 km/h • Filling grid • EU type approval
Spreading unit	AXIS PowerPack EMC V8 or AXIS PowerPack EMC VariSpread pro ISOBUS
Accessories	• Steering axle • TELIMAT Border spreading system • GSE Border spreading unit • CCI. ISOBUS terminals (CCI.1200 and CCI.800) • CCI.Command with VariSpread and OptiPoint • CCI.Task-Controller, HillControl • WLAN-Modul: Communication with the RAUCH App

Spreader discs (not standard equipment)	VXR plus	AXENT 90.1
S4 VXR plus	Coating of spreading vanes for extra-long service life	18 - 28 m
S6 VXR plus		24 - 36 m
S8 VXR plus		30 - 42 m
S12 VXR plus		36 - 50 m

AXENT 100.1

Maximum fertiliser payload	8,400 kg
Maximum hopper volume	9,600 litres
Empty weight	4,250 kg without spreading module
Permissible total weight	13,000 kg (12,000 kg 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 to 3.0 m (depending on track and tyres)
Overall height/filling level	3.15 m to 3.25 m / 2.95 m to 3.15 m (depending on tyres)
Track widths	2.0 m, 2.10 m, 2.15 m, 2.25 m, 2.40 m
Distance trailing ball – axle	5.00 m bottom hitching; 4.61 m top hitching
Tyres	520/85 R 42
Permissible maximum speed	40 km/h
Spreading module weight	AXIS PowerPack 18 to 50 m / 350 kg UNIVERSAL PowerPack incl. comb roller / 350 kg

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

Standard equipment	• ISOBUS electronics with job computer • 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 • EU type approval • Filling grid • Rear-view camera • Weighing unit for residual quantity display
Spreading unit	AXIS PowerPack or UNIVERSAL PowerPack incl. comb roller
Accessories	• Steering axle • CCI. ISOBUS Terminals (CCI.1200 und CCI.800) • CCI.Command mit VariSpread und OptiPoint • CCI.Task-Controller, HillControl, CornerControl • WLAN-Modul: communication with the RAUCH App

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S6 VXR plus		24 - 36 m
S8 VXR plus		30 - 42 m
S12 VXR plus		36 - 50 m



RAUCH Homepage

For more useful information,
visit the RAUCH website

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