

M/TSW 3140 E/T | M/TSW 4190 S  
Gross weight of 12,000 to 19,000 kg

**BERGMANN**

*...die Spezialisten*

# Manure/universal spreaders

A strong line for effective operations





*Proven quality:  
"Made in Goldenstedt"*



BERGMANN, a successful, medium-sized, family-owned company in the third generation, has been firmly linked to its business location in Goldenstedt and its people for over 125 years.

Our actions are determined by an awareness of tradition and our innovative strength. Our state-of-the-art products for spreading and grassland technology, harvesting and transport logistics meet the highest quality standards and are in use worldwide every day.

As a strong and reliable partner in the agricultural sector, we develop and produce practical agricultural technology for our customers at our company's factory in Goldenstedt.

Our company philosophy, our ambition and our commitment are:

**Quality "Made in Goldenstedt"**



## The manure and universal spreaders with a vehicle gross weight of 12,000 kg to 19,000 kg

BERGMANN has always pursued innovative ideas and significantly promoted important developments. Our modern manure and universal spreaders are the ideal choice for environment friendly large-surface spreading of quality materials, such as compost, organic sewage sludge, lime and all kinds of cattle and poultry manure. BERGMANN manure and universal spreaders operate reliably even under difficult conditions. BERGMANN spreaders have received highest recognition for functionality and quality with outstanding spreading accuracy.

Wherever particularly demanding conditions prevail, BERGMANN manure and universal spreaders come into their own. To cater for different materials and spreading requirements, all vehicles can be fitted with various spreader units for application rates from 1 to 50 t/ha.

A wide range of optional extras allow the machines to be adapted to specific customer requirements. All manure and universal spreaders can be operated via ISOBUS.



# Manure/universal spreaders M/TSW 3140 E/T

## Features at a glance

### TSW 3140 E/T:

- Milling unit (1,400 mm passage height) with two horizontal beaters and chain drive (standard); **optional cardan drive.**
- **Screwed double tines** for finest shredding of the spreading material.
- Disk spreader unit with two disks (ø 1,000 mm, thickness 8 mm, four spreader blades each) for **exact spreading of all materials.**

### M 3140 E/T:

- Spreader unit (1,400 mm passage height) with **four vertical beaters** and **screwed double tines** for finest shredding of the spreading material.
- Hydraulically foldable spreader hood to prevent material loss when driving on roads.

**Conical all-steel bin** prevents bulking of material in front of the spreader unit and ensures superior reliability, consistent application rates and reduced power demand.

Sturdy, self-supporting all-steel bin **for maximum payload** and **minimum cleaning and maintenance times.**

M/TSW 3140 E optionally with mechanical weighing system.

**Automatic chain tensioners**, that are clearly visible from the driver's seat and easy to adjust, ensure reliable operation at all times.

**Operation** of the hydraulic functions:

- tractor control units (standard)
- e-control light (optional)
- PILOTBOX (optional)
- ISOBUS (optional)

Air brake as standard, M/TSW 3140 T in addition with ALB regulator for maximum road safety.  
**EU type approval (CoC) as standard;** no country-specific national approvals necessary.

Robust single-axle chassis (M/TSW 3140 E) or tandem pendulum suspension (M/TSW 3140 T) with 1,900 mm track for adverse conditions.  
Wide tyres for **low ground disturbance.** Axle cover for **easy cleaning** as standard. Follow-up steering and lift axle are optionally available for the TSW 3140 T.

**One-piece drive train** for superior reliability.  
Transfer case protection through centrally mounted cam clutch.

**Hydraulically driven scraper floor** with **four chains with 25 t breaking load each** for outstanding reliability and reversing function. **Bolted scraper floor bars** for easy replacement.

**High drawbar** (standard) or **low drawbar** (optional) for even higher driving comfort.  
Mechanical drawbar suspension standard.



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## Manure/universal spreaders M/TSW 3140 E/T

Single axle/tandem | 12,000 – 15,000 kg



**Easy coupling**  
The M/TSW 3140 E/T models feature a height-adjustable, mechanically suspended high drawbar as standard. For even higher driving comfort, a mechanically suspended low drawbar is optionally available. The low hitching point makes starting off at high loads easier. The drawbar's slim design creates a highly manoeuvrable tractor-trailer combination.



Various drawbar eyes are available for coupling. The optional ball coupling offers superior driving comfort at low wear. The hydraulic hoses are stored neatly in the hose cabinet, where they are protected from soiling.



**Convenient parking**  
The jack stand with hand crank ensures easy coupling and uncoupling of the vehicle. With the vehicle coupled, the jack stand can be raised. For quicker low-effort coupling and uncoupling, the Jost jack stand with a tongue load of 10 t and 2-speed gearbox is optionally available. For increased convenience, a hydraulic jack stand is also available.



**Robust single axle chassis**  
The single axle vehicle is equipped with a stable, screwed chassis and air brake. It has a 130 mm square axle and a track width of 1,900 mm as standard. In combination with the tyres, the chassis ensures comfortable, smooth driving characteristics on both field and road. A large selection of tyres from 550/60-22.5 to 800/45 R26.5 are available.



**Robust tandem chassis**  
The 4-spring-tandem chassis has a 100 mm square axle and a track width of 1,900 mm. An air brake system with ALB regulator is also standard. A follow-up steering and a lift axle are optionally available for this chassis. In combination with the tyres, the chassis ensures comfortable, smooth driving characteristics on both field and road. A large selection of tyres from 550/45-22.5 to 750/45 R22.5 are available.



**Conical all-steel bin**  
The fully welded, self-supporting conical all-steel bin reliably prevents the material from bulking in front of the spreader unit, ensures constant application rates and reduces the power demand of the scraper floor drive. It has a long service life and offers maximum payload. Its open design without subframe allows the spreader to be quickly and easily cleaned and serviced.

# Manure/universal spreaders M/TSW 4190 S

## Features at a glance

### Operation of the hydraulic functions:

- tractor control units (standard)
- e-control light (optional)
- PILOTBOX (optional)
- ISOBUS (optional)

### Automatic chain tensioners, that are clearly visible from the driver's seat and easy to adjust, ensure reliable operation at all times.

**Conical all-steel bin** prevents bulking of material in front of the spreader unit and ensures superior reliability, consistent application rates and reduced power demand.

### TSW 4190 S:

- Milling unit (1,400 mm passage height) with two horizontal beaters and chain drive (standard); **optional cardan drive**.
- **Screwed double tines** for finest shredding of the spreading material.
- Disk spreader unit with two disks (ø 1,000 mm, thickness 8 mm, six spreader blades each) for **exact spreading of all materials**.

### M 4190 S:

- Spreader unit (1,400 mm passage height) with **four vertical beaters** and **screwed double tines** for finest shredding of the spreading material.
- Hydraulically foldable spreader hood to prevent material loss when driving on roads.

**High drawbar** (standard) or **low drawbar** (optional) for even higher driving comfort.

Mechanical drawbar suspension standard.

### VIDEO



**One-piece drive train** for superior reliability. Transfer case protection through centrally mounted cam clutch.

**Hydraulically driven scraper floor** with **four chains with 25 t breaking load each** for outstanding reliability and reversing function. **Bolted scraper floor bars** for easy replacement.

Robust, V-shaped chassis made of 300 mm U-profile.

Robust tandem pendulum suspension unit with 1,900 mm track for difficult operating conditions. Wide tyres for **low ground disturbance**. Axle cover for **easy cleaning** as standard. Follow-up steering and hydraulic or electronic forced steering and lift axle are optionally available.

Air brake and ALB regulator for maximum road safety as standard. **EU type approval (CoC) as standard;** no country-specific national approvals necessary.



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## Manure/universal spreaders M/TSW 4190 S

Tandem | 18,000 – 19,000 kg



**Easy coupling**  
The M/TSW 4190 S models feature a height-adjustable, mechanically suspended high drawbar as standard. For even higher driving comfort, a mechanically suspended low drawbar is optionally available. The low hitching point makes starting off at high loads easier. The drawbar's slim design creates a highly manoeuvrable tractor-trailer combination.



Various drawbar eyes are available for coupling. The optional ball coupling offers superior driving comfort at low wear. The hydraulic hoses are stored neatly in the hose cabinet, where they are protected from soiling.



**Convenient parking**  
The Jost jack stand with a tongue load of 10 t and 2-speed gear-box ensures easy coupling and uncoupling of the vehicle with low effort. For increased convenience, a hydraulic jack stand is also available.



**Robust chassis**  
The robust, screwed 4-spring-tandem chassis has a 130 mm square axle and a track width of 1,900 mm. An air brake system with ALB regulator is also standard. In combination with the tyres, the chassis ensures comfortable, smooth driving characteristics on both field and road. A large selection of tyres from 550/60-22.5 to 750/45 R22.5 are available.



**Superior driving comfort**  
A follow-up steering and a hydraulic forced steering are optionally available for this chassis. They increase driving comfort and reduce ground disturbance. A further option is the lift axle, which, like the steering, ensures lower tyre wear. It also increases the tongue load on the tractor, thereby improving the tractor's traction.



**Conical all-steel bin**  
The fully welded, conical all-steel bin reliably prevents the material from bulking in front of the spreader unit, ensures constant application rates and reduces the power demand of the scraper floor drive. It has a long service life and offers maximum payload. The sturdy ladder-type frame with axle cover as standard allows the spreader to be quickly and easily cleaned and serviced.

M/TSW 3140 E/T



M/TSW 4190



**Robust and low-wear**

The scraper floor is made of steel with four robust round-link steel chains (14 x 50 mm each, 25 t breaking load per chain) with scraper floor bars. The bars running on separate wear rails are screwed in, making them easy to replace. They are open towards the underside, so that they convey the material to the spreader unit with a double raking action. For optimum conveying of the material, the bar mounts are angled downwards to ensure that the scraper floor bars are reliably pulled to the floor.

**Perfect visibility**

The body's front wall features viewing windows, which provide the driver with an unimpeded view of the cargo space (top) and scraper floor (bottom) at all times. The standard equipment includes a rockfall screen, which protects the driver from any material that is thrown towards the front.



**Reliable and powerful**

The chains rest very low in the chain sprockets on the feed shaft at the rear. Integrated scrapers at the front and rear reliably prevent chains from skipping.

**Easy access**

An access ladder is fitted on the right side in driving direction to allow checking of the body from above. The access ladder is height-adjustable to ensure maximum ground clearance in the field.

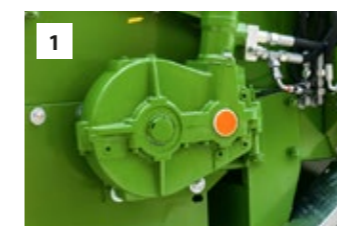


**Convenient chain tensioning**

The automatic tensioning system ensures a constant tension of the scraper floor chains, making for reliable operation and smooth running. The driver has a clear view of the automatic tensioning system with its four tensioning stations, which can be easily adjusted from the outside.

**More load volume**

The side walls are protected from damage by the scraper guards, which are made of recycled plastic and are fitted as standard. To increase the load volume, 250 mm high side wall extensions are available. These can be fitted on the left, on the right or on both sides. On the 3140 models, mechanically foldable side wall extensions are optionally available.



**Powerful drive**

The scraper floor is driven hydraulically via the tractor's control units. Infinite adjustment of the scraper floor speed via a flow control valve, e-control light, PILOTBOX or ISOBUS is optionally available. The large-sized spur gearbox (1) ensures optimum power transmission. For spreading lime or sticky material, we recommend the optional reinforced spur gearbox (2) for the M/TSW 3140; this is already standard on the M/TSW 4190 S.





## SPREADER UNITS OF THE MANURE SPREADERS

Manure spreaders M 3140 E/T and M 4190 S

### Splash guard

The M/TSW 3140 and M 4190 S do not have a dosing wall as standard. A splash guard is fitted in the upper section of the spreader unit of the TSW 3140, which prevents the material from being thrown forwards by the milling beaters.



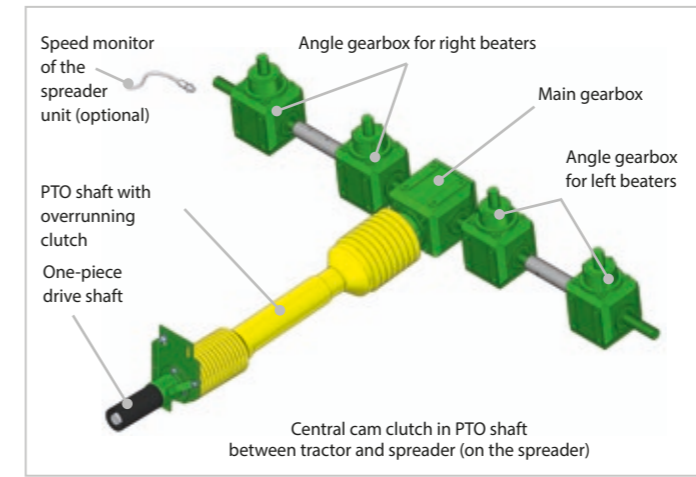
### Optimised dosing

For the M/TSW 3140 models and the M 4190 S, a dosing wall with 1,400 mm passage height is optionally available; this is standard on the TSW 4190 S. It serves to optimise material dosing. The exact position of the dosing wall can be conveniently checked on the mechanical height indicator with its large scale on the spreader's front wall. The dosing wall in combination with ISOBUS operation is optionally available with a position sensor. The dosing wall height is displayed on the operator terminal. The dosing wall can also be automatically opened to a preset opening height at the press of a button.



### Low-maintenance drive train

The one-piece drive train has a high load capacity, is fitted without spring pins or similar and is centrally protected. This makes it very low maintenance.



### Long service life

The spreader unit drive features a central protection and large-sized gearboxes for a long service life.

### High throughput

The M 3140 and M 4190 S models feature a 4-beater spreader unit with vertical, reinforced beaters. The spreader unit has a passage height of 1,400 mm. The beaters are fitted with screwed double tines for fine shredding of the spread material. This spreader unit is suitable for spreading solid manure and for high throughput rates.



### Superior protection

The hydraulically foldable spreader hood, which is standard on the M models, protects the spreader unit and prevents loss of material when driving on roads.



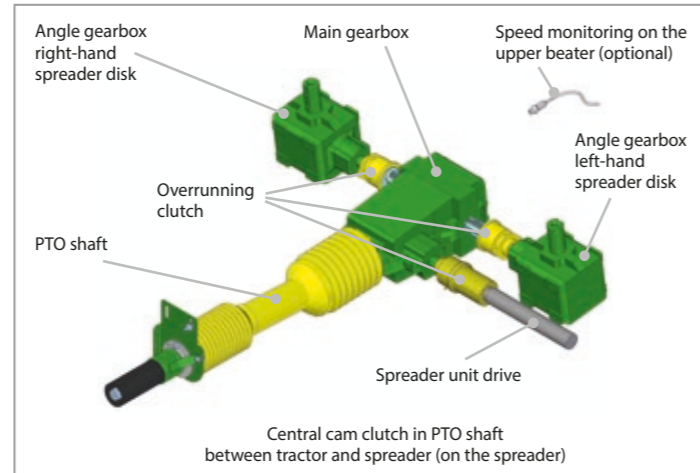
# SPREADER UNITS OF THE UNIVERSAL SPREADERS

Universal spreaders TSW 3140 E/T and TSW 4190 S

## Long service life

The spreader unit drive features a central protection and large-sized gearboxes for a long service life. The drive train of the TSW models features overrunning clutches before the main gearbox and the disk gearboxes. These ensure a high level of reliability.

For added safety, speed monitoring of the upper beater is optionally available.



## Ideal power transmission

As standard, the milling beaters are driven via roller chains. Spring-loaded chain tensioners ensure perfect power transmission and low wear.

To simplify chain drive maintenance, an automatic drive chain lubrication system is optionally available.



## Quiet operation, minimum maintenance

Optionally, the cardan drive can be selected for driving the milling beaters.

The advantages of the cardan drive are its quiet operation, minimum maintenance requirements as well as substantial cost savings due to its longer service life.



## Perfect shredding

The milling unit of the TSW 3140 and TSW 4190 S models features two horizontal beaters as standard and has a passage height of 1,400 mm. For efficient shredding, the milling beaters are equipped with double tines in a V-arrangement. These are screw-fitted for easy replacement. For a better material flow, the tine beams are inclined between the tines. This also reduces power demand.

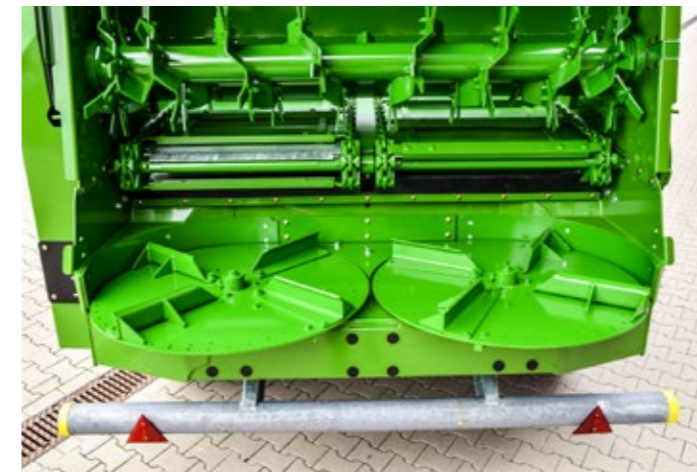


## Exact setting

To prevent damage to the spreader hood, it is fully lined with strong PE panels as standard. The lower part of the spreader hood – the lower tailgate – can be adjusted in passage height and inclination. This allows the material feed point on the spreader disks to be ideally positioned over the disks for precise spreading of different materials under varying conditions. A spring-loaded auto-reset system provides protection against foreign objects.

## High spreading quality – TSW 3140

Both models of the TSW 3140 feature a disk spreader unit with two spreader disks (each with 1,000 mm diameter and four adjustable spreader blades). The disk spreader unit is optionally available with Hardox-grade spreader blades and guide plates. The spreader unit can be used universally for numerous materials, such as solid manure, compost, lime or sewage slurry.



## High spreading quality – TSW 4190 S

The disk spreader unit of the TSW 4190 S features two spreader disks (each with 1,000 mm diameter and six adjustable spreader blades). To reduce wear of the disk spreader unit, it can optionally be fitted with Hardox-grade spreader blades and guide plates. The spreader unit can be used universally for numerous materials, such as solid manure, compost, lime or sewage slurry.





**Accuracy at the field edge**

Three versions of the hydraulically operated spread pattern limiter are optionally available for the TSW models: left side only, right side only, and on both sides.

The spread pattern limiter allows precise spreading at the field edges and even fertilisation all the way to the field edge. It also prevents soiling and contamination of roads, paths and waterways.



**Easy maintenance**

Maintenance of the scraper floor is made easy by the central lubrication bank fitted as standard equipment with four easily accessible lubrication points in the front area of the vehicle. A further lubrication bank with three lubrication points is located in the rear area of the spreader for maintenance of the rear drive shaft.

**Enhanced operator convenience**

An optionally available sensor detects whether the spread pattern limiter has been activated or deactivated. When the spread pattern limiter is lowered, the scraper floor speed is automatically reduced to maintain a constant application rate at the reduced working width. This function is available only in combination with ISOBUS operation.



**Reliable lubrication**

The optional central lubrication system automatically lubricates all connected lubrication points at the set intervals. This significantly reduces periodic maintenance times for the user.

**Counting made easy**

For documentation on machines without ISOBUS equipment, the optional load counter counts the spread loads and displays them at the press of a button.

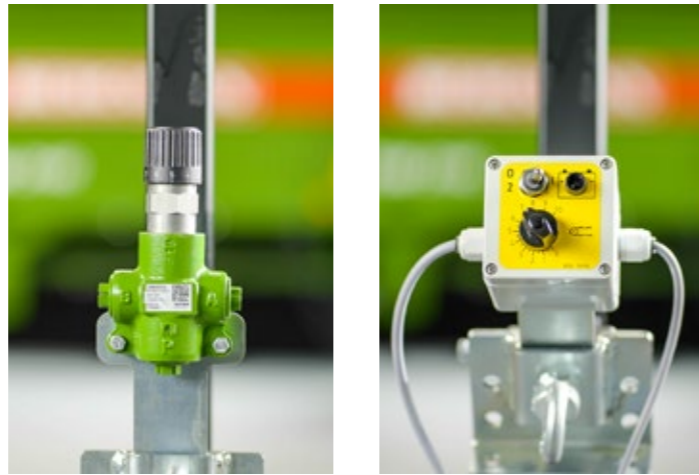


**Easy access**

The scraper floor can be easily reached for cleaning and maintenance through a removable panel.

### Operation via control units

As standard, the hydraulic functions are operated via the control units of the tractor. An option for adjusting the scraper floor speed via the manually adjustable flow control valve or the electronic e-control light unit is available.



### Operation via PILOTBOX

The optional PILOTBOX allows easy operation of the hydraulic functions. The operator controls are arranged clearly and ergonomically and each control has a specific function. The number of functions that can be controlled depends on the equipment. On the tractor, only a single-acting control unit and an unpressurised return are required. Load sensing is optionally available.



### ISOBUS terminal CCI 50

The CCI 50 ISOBUS terminal with 5.6" touch screen, 12 function buttons and a scroll wheel can be used with all machine makes. This terminal can be expanded with a Task-Controller for order management and documentation as well as the automatic Section Control.



### ISOBUS terminal CCI 800

With its large 8" display, the CCI 800 allows the operator to fully focus on the task at hand. Multi touch in combination with the innovative menu navigation makes it as easy to operate as a smartphone. Functions such as Task-Controller and Section Control can be integrated. A connection to the agrirouter is also possible. For even more convenience, camera images can be displayed in addition to the user interface.



### ISOBUS comfort operation

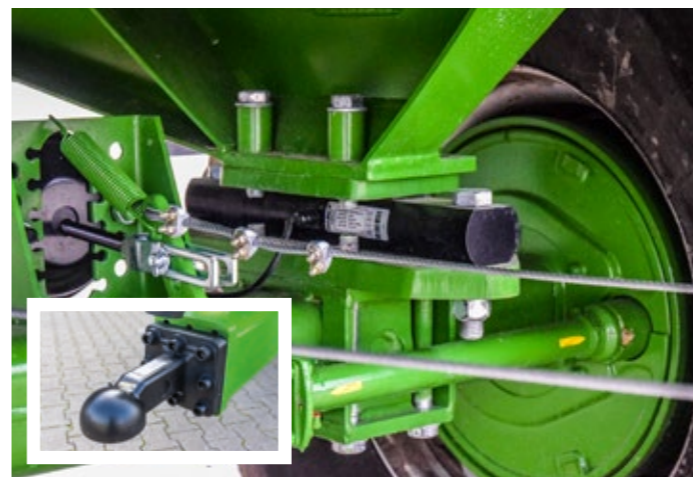
Superior user friendliness and high ease of use with optional ISOBUS operation. Even inexperienced drivers will have no problem operating the intuitive user interface with the self-explanatory graphics and icons. A load counter and the speed monitor are included as standard in the ISOBUS software. Thanks to the AEF-certified software, the vehicle can be operated via any ISOBUS terminal. A tractor with its own ISOBUS-compatible terminal does not require an additional terminal in the cab. This means that the driver has a clear all-round view, which improves road safety and provides a better overview on the field.

Also optionally available are additional AUX-N control devices, such as the CCI A3 multi-function lever and a connection to the TC Task-Controller (operating status, documentation, selective spreading (VRC), Section Control (SC), etc.). On the tractor, only a single-acting control unit and an unpressurised return are required. Load sensing is optionally available.

### ISOBUS terminal CCI 1200

The CCI 1200 is an ISOBUS terminal with 12.1" display and intuitive multi-touch operation on smartphone level. The large terminal offers plenty of space for the simultaneous view of several apps. It also allows two ISOBUS-capable machines to be displayed and operated at the same time. Apps for automatic section control and variable spreading ensure a precise application. In addition, the CCI 1200 is "ready for agrirouter" and can be used for all machine makes.





**Exact documentation**

The optional weighing system of the M/TSW 3140 E, consisting of weigh bars between axle and body, and the K80 measuring drawbar eye allow exact control of the load, total spread mass and application rate. It excels with superior measuring accuracy. The load weight is indicated on a separate weighing terminal or, optionally, via ISOBUS.

**Exact application rates**

The ExaRate weighing compensation system is integrated in the ISOBUS software and continually monitors the weight reduction during spreading and compares it to the specified application rate (t/ha). The actual application rate is automatically adjusted to the specified application rate. This makes the organic fertiliser go even further, supplying the soil with just the right amount of nutrients for a higher crop yield.



**Working lights**

LED working lights on the front wall or at the top on the spreader hood ensure excellent visibility in the working areas. The optional working lights are operated either from a control box, a PILOT-BOX or conveniently from the ISOBUS.

**Selective cultivation**

Selective cultivation (Variable Rate Control, or VRC) at non-homogeneous soil conditions is possible through the use of application maps in the ISO XML or Shape format in combination with the BERGMANN control system. This allows, for example, fertiliser to be applied as needed, thereby maximising yields and minimising costs.

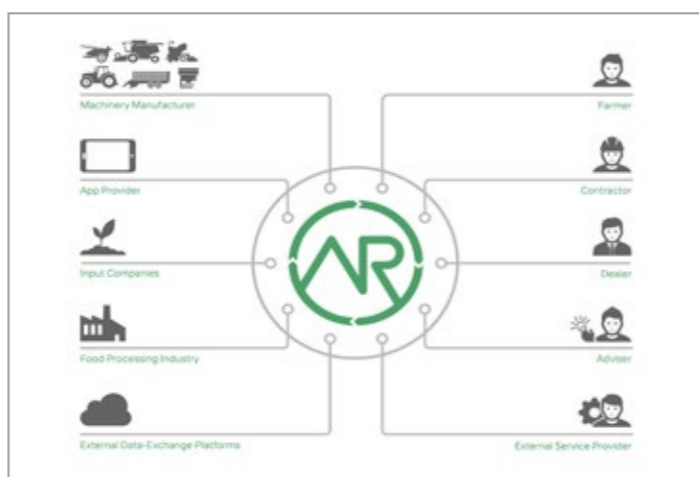


**Good visibility**

In addition to the required lighting, further lighting options, such as LED rear lights instead of the standard rear lights are optionally available.

**Easy data exchange**

The agrirouter is a neutral, generic web-based platform for data exchange between machines and agricultural software. Machine, GPS and order data can, for example, be saved in ISO XML format and conveniently transferred from the terminal via the agrirouter to the farm's agricultural software. The agricultural software can also send data such as application maps to the vehicle.



**Europe-wide approval**

The M/TSW 3140 E/T and the M/TSW 4190 S have full EU type approval according to the official regulation as standard. The CoC (Certificate of Conformity) papers are also supplied. Especially when reselling within the EU, type approval is an advantage, as it removes the need for individual national approvals.



## Technical data

### Manure spreaders

		M 3140 E	M 3140 T	M 4190 S
Chassis		Single axle	Tandem	Tandem
Gross vehicle weight	kg	12,000 – 13,000	14,000 – 15,000	18,000 – 19,000
Dead weight*	kg	4,300	4,850	5,820
Load*	kg	7,700 – 8,700	9,150 – 10,150	12,180 – 13,180
<b>Bridge dimensions</b>				
Length	mm	4,900		5,600
Width	mm	2,050		
Height	mm	1,070		
<b>Vehicle dimensions</b>				
Length	mm	7,440		7,890
Width without tyres	mm	2,500		
Height	mm	3,510**	3,540**	3,515**
Transfer height	mm	2,560**	2,590**	2,600**
Load volume*	m <sup>3</sup>	14.1		15.8
Power demand	kW / HP	74 – 110 / 100 – 150		81 – 125 / 110 – 170

### Universal spreaders

		TSW 3140 E	TSW 3140 T	TSW 4190 S
Chassis		Single axle	Tandem	Tandem
Gross vehicle weight	kg	12,000 – 13,000	14,000 – 15,000	18,000 – 19,000
Dead weight*	kg	4,700	5,250	6,320
Load*	kg	7,300 – 8,300	8,750 – 9,750	11,680 – 12,680
<b>Bridge dimensions</b>				
Length	mm	4,900		5,600
Width	mm	2,050		
Height	mm	1,070		
<b>Vehicle dimensions</b>				
Length	mm	7,690		8,130
Width without tyres	mm	2,500		
Height	mm	3,510**	3,540**	3,515**
Transfer height	mm	2,560**	2,590**	2,600**
Load volume*	m <sup>3</sup>	14.1		15.8
Power demand	kW / HP	81 – 125 / 110 – 170		88 – 147 / 120 – 200

\* depending on equipment

\*\* with reference wheel 650/50 R.22.5 Nokian

#### Optional:

- Lift axle
- Side wall extensions
- Spreader unit with cardan drive (TSW)
- Speed monitor
- Spread pattern limiter (TSW)

- ISOBUS operation
- Central lubrication system
- LED working lights
- Various lighting possibilities
- Various tyre options
- Weighing system (single axle)

We reserve the right to make changes to dimensions, weights and technical data. Dimensions and weights do not necessarily correspond to series versions and are not binding. Illustrations may contain additional equipment.

## Our product range contains the right vehicle for every operation and every application.

- ▶ Manure Spreaders
- ▶ Universal Spreaders
- ▶ Loader Wagons
- ▶ Forage Transport Trailers
- ▶ Body Swap System
- ▶ Grain Transfer Trailers
- ▶ Beet Transfer Trailers
- ▶ Self-propelled Systems

# BERGMANN

*...die Spezialisten*

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