

LEHNER



LIMAX®

Operating manual with spare parts list

LAS 4 controller

Software from Version 3.1 onwards

Last updated: March 2021

Serial number:

Software version:

Translation of the original operating manual

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1. What you should know

1.1 Foreword

Congratulations on your purchase and thank you for the confidence you have placed in us. With the **LIMAX®**, you have purchased a high-quality and innovative product.

Thanks to its advanced design, meticulous material selection, state-of-the-art manufacturing techniques and the precision work of our employees, this equipment satisfies all the requirements for efficiency, quality, reliability and value.

Maintaining and servicing in accordance with the operating manual ensures that your **LIMAX®** is safe and retains its value.

1.2 About this operating manual

This operating manual forms part of the **LIMAX®** and must always be readily available. It must be read and followed by all persons who work with the **LIMAX®**.

It will help them to familiarise themselves with the technical details and find out how to control the machine and optimise its performance.

Warnings

Warnings in this operating manual are identified as follows:

	Danger! Warning of immediate danger. Non-observance of the measure may result in death and severe personal injury or serious damage to property.
	Warning! Warning of possible danger. Death, severe personal injury or serious damage to property are possible.
	Caution! Warning of possible dangerous situations. Minor personal injury or damage to property is possible.

1.3 Intended use

The **LIMAX®** is intended solely for spreading granulate and seeds.

1.4 Warranty

We provide a 24-month warranty on the **LIMAX®**.

**Caution!**

Faulty or incorrectly dimensioned plugs and cables can lead to malfunctions. Only use original plugs and cables, or ones approved by the manufacturer.

Any changes to cable or plug connections without factory approval automatically invalidates the warranty. Motors may not be opened or dismantled. Warranty repairs must be coordinated with the manufacturer before any work is started.

For replacement parts, additional expenses are automatically charged for any changes made to cables and plugs by the customer. Replacement parts are to be returned carriage paid.

Rusted bearings are not covered by the manufacturer's warranty.

Prior to assembly:

Check your **LIMAX®** on receipt for any damage caused in transit. Any such damage must be reported to the manufacturer within 24 hours of receipt.

1.5 About your safety

- Carefully read and observe this operating manual before use. Always keep this manual at the point of use.
- Observe the accident prevention regulations, safety and operating regulations and the regulations for environmental protection.
- Observe all applicable standards and guidelines.
- When travelling on public roads and streets, observe the road traffic regulations.
- Observe the safety instructions.
- Immediately resolve any safety-related defects.
- Keep out of the spreading zone. Make sure that no other persons are in the spreading zone.
- Do not reach into the hopper during operation.
- Follow the safety guidelines of the package insert when spreading granulates.
- Wear protective clothing, universal protective gloves in particular, when filling slug pellets or mouse bait. Fill only with the quantity of slug pellets or mouse bait needed in the short term. Return any remaining product to the original packaging.

Ensure that the product does not get into the environment uncontrolled.

- Observe the following points when spreading slug pellets:
 - The device should be mounted only on the front of carrier vehicles having an enclosed cab.
 - Windows should remain closed.
 - Care should be taken that air intake into the cabin is always filtered. The functionality of the filters must be ensured by the user.
- Do not undertake any repairs, maintenance or cleaning work on the **LIMAX®** when the mains plug is inserted.
- Comply with the regulations of the spreading material manufacturer.
- It is essential to comply with the instructions of the respective spreading material manufacturer.
- LEHNER Maschinenbau GmbH does not accept any liability for storage and use of the spreading material.

2. Starting up the LIMAX®

2.1 Mounting the frame

The **LIMAX®** can be screwed on directly or attached by means of an auxiliary bracket.

Mounting holes are provided on the back of the frame.

The delivery height can be found in the spreading charts (1.00 - 1.30 m).

The **LIMAX®** can be attached to the front or rear of a tractor, off-road vehicle, ATV or soil cultivation equipment. Because the **LIMAX®** is considerably heavier with a full hopper, check the load capacity of platform gates and other cantilevers.

2.2 Electrical connection

Technical data

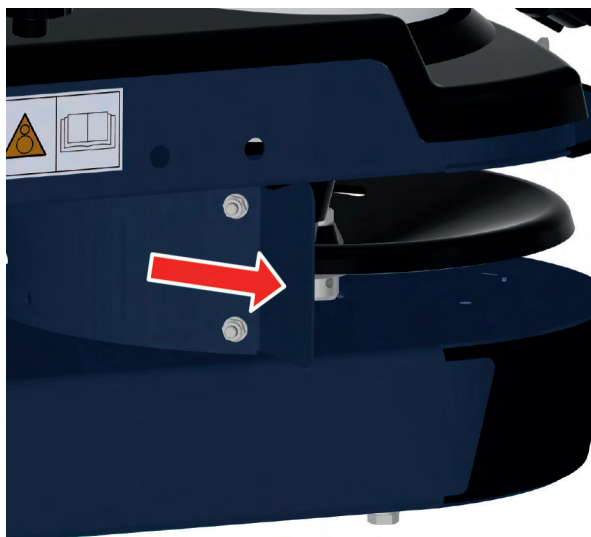
Operating voltage	12 to 15 V
Fuse	25 A
Motor output	400 W
Speed range	200 to 2500 rpm
Current consumption Bosch motor	Up to 25 A on starting, up to 18 A during normal operation
Operating temperature	-10 to +70 °C
Storage temperature	-30 to +70 °C
Weight of LIMAX® 70/110/170	32/34/36 kg

Any changes to cable or plug connections without factory approval automatically invalidate the entire warranty. Changes to cables are automatically charged in the event of repairs.

You must consult the manufacturer before carrying out any cable modifications.

Power loss must be taken into account when extending cables. A poor power supply may prevent you from achieving the desired speed. Also, this could lead to intermittent complete failure.

2.3 Attaching the LIMAX®



1. Check that the hopper fits well in the hopper platform.
2. Using screws, attach the supplied impact plate (arrow) perpendicular to the spreader.
3. Check that the **LIMAX®** is securely attached.

Note:

The handles (2x) can be fitted to the holes provided for them to make the machine easier and better to handle.

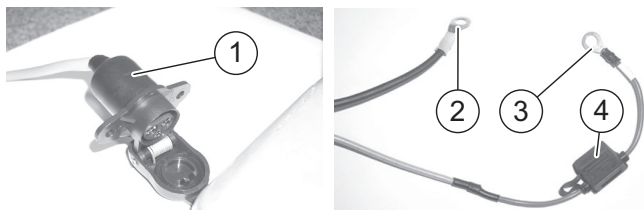
Important:

The handles may only be used when the hopper is not filled.

2.4 Mounting the control panel

**Caution!**

Ensure that the cable is not routed over any sharp edges.



1. Mount the support for the control console in the vehicle cab.
2. The supplied battery cable must be installed, even if there is a socket available, as our battery cable is 4 mm².
 - Connect terminal **2** to the negative terminal of the battery (not to the bodywork).
 - Connect terminal **3** (with fuse **4**) to the positive terminal of the battery. Run the end of the cable with the socket into the carrier vehicle.
3. Plug the spreader cable into the 16-pin socket of the control panel.

Your device is now ready to operate.

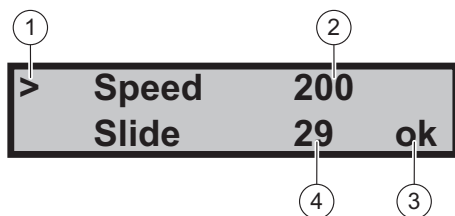
3. Operating the LIMAX®

3.1 Controls on the control panel



1. Switching on/off
2. Display
3. Opening and closing the slide
Slide open: green LED lights up
Slide closed: yellow LED lights up
4. Empty indicator
5. Switch to change between speed and slide
6. Setting the speed or slide
7. Preparing the headland manager

3.2 Information shown on the display



1. Arrow denotes the active line
2. Spreading disc speed
3. OK sign for open slide
4. Slide opening



For error messages, see also section "6.4 Troubleshooting" on page 38.

3.3 Switching on/off

	Danger! The drive motor starts immediately when switched on. Make sure that no-one is in the danger area when you switch the system on.
---	--

	Press the button. The speed of the spreading disc and the slide opening are displayed. The slide is always closed at switch-on.	<table border="1"> <tr> <td>> Speed</td> <td>200</td> </tr> <tr> <td>Slide</td> <td>29</td> </tr> </table>	> Speed	200	Slide	29
> Speed	200					
Slide	29					

If this message is displayed, a cable is damaged or a plug disconnected.

> Speed	200
Spr. connection	

Low temperatures can cause the empty indicator to respond slowly.

Check the setting:

1. Let the spreader run for approx. one minute with the slide closed.
2. If the slide is now opened, the empty indicator must respond after approx. five seconds.
3. If this does not happen, place the empty indicator in the negative range by 5 %; see section “4.6 Adjusting the empty indicator” on page 22.

Autostart

If the motor is difficult to start due to heavy loads, the motor starts up to ten times in alternating directions. If this does not free up the agitator, the motor is automatically switched off. The following message is shown in the display:

Disc blockage.

	Danger! Never open the hopper or touch the spreading disc when the drive motor is running. Switch off the drive motor and make sure that the motor is stopped before opening the hopper or touching the spreading disc.
---	--

Remove blockage:

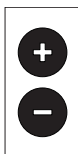
1. Switch off the motor.
2. Manually turn the spreading disc or empty the hopper.

3.4 Setting the speed



If necessary, press the button to select the speed; the arrow points to the first line in the display.

> Speed	200
Slide	29



Press the + or - button to set the speed.

The speed can be adjusted continuously from 200 to 3000 rpm.

The required rotational speed can be found in the spreading charts.

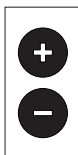
The set speed will be shown in the display for ten seconds, after which the actual speed will be shown.

3.5 Adjusting the slider opening



If necessary, press the button to select the slide; the arrow points to the second line in the display.

Speed	200
> Slide	29



Press the + or - button to set the slide opening.

The required slide opening can be found in the spreading charts.

3.6 Opening/closing the slide



Press the button to open or close the slide.

Slide open: green LED lights up

Slide closed: yellow LED lights up

> Speed	200
Slide	29 ok

Slide monitoring

If the slide does not reach the specified opening within ten seconds, the spreader switches off.

The following message is shown in the display:

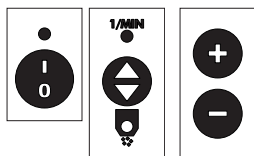
Slide not open or Slide not closed.

Five warning signals also sound.

For troubleshooting, see section "6.4 Troubleshooting" on page 38.

3.7 Performing the slide reference run

The slide motor and control panel are adjusted to one another at the factory. This adjustment can be lost over time or when replacing the control panel.



Switch off the machine.

Press and hold the button for switching between speed and slide and the + button to switch the machine on.

Keep all three buttons pressed for about three seconds.

The slide performs its reference run.

The display shows approx. 240 as the upper value and approx. 40 as the lower value. Switch machine off at the main switch so that the values are stored. If a slide reference run cannot be performed, the following message flashes on the display: no slide calib.

Check the mechanical clearance of the slide and perform the reference run again.

3.8 Setting the working width

The working width depends on the condition of the spreading material and the speed of the spreading disc. The more coarse the spreading material, the larger the possible working width.

1. Set the speed according to the spreading chart.
2. Set the casting blades according to the spreading chart.

3.9 Setting the agitator

Because grasses, in contrast to seeds with their grain structure, have very poor flow properties, the agitator must be adjusted accordingly.

Important: The LIMAX is designed solely for spreading slug pellets. Its suitability for spreading other materials, such as grass and catch crops, is limited. The manufacturer does not recommend this. We cannot accept liability for any damage caused.



Setting for grasses:

Upper stirring shaft on one side

Lower stirring shaft at a ratio of 2/3 or 1/3



Setting for remaining products:

This is the recommended agitator setting.

Upper stirring shaft removed

Lower stirring shaft at a ratio of 1 to 1



Danger!

Do not adjust the stirring shafts if the agitator is installed, which otherwise could lead to bearing failure on the motor.

1. Remove the hopper.
2. Firmly hold the spreading disc and turn the agitator to the right.

Important: Left-hand thread!

3. Appropriately install the stirring shafts.

3.10 Empty indicator

The empty indicator indicates when the spreading material in the hopper drops below a certain level.

The message "Hopper empty" flashes on the display for approx. five seconds. At the same time, eight warning signals sound and the red LED on the empty indicator flashes.

To switch off the empty indicator, briefly close the slide or switch off the spreader.

3.11 Calibrating the empty indicator

	Caution! Machine automatically calibrates the empty indicator. Risk of injury!
	Danger! The drive motor starts immediately when switched on. Make sure that no-one is in the danger area when you switch the system on.



Press and hold the On/Off button for about eight seconds.

Machine starts the calibration automatically. The spreading disc rotates for 30 seconds at maximum rpm. It then falls very slowly to 0 rpm. The parameters are stored in the controller.

Calibration takes three minutes.

During calibration of the empty indicator, the following message appears on the display.

Error FLP = PWR

The spreader switches off automatically once calibration is completed.

Calibration of the empty indicator has been successfully completed. It is now possible to spread by restarting the machine.

4. Settings and displays

The control element can be used to make the following settings:

- Language
- Empty indicator selection
- EHR signal
- EHR cycle
- Empty indicator adjustment
- Spreader type
- Number of spreaders
- Motor selection

4.1 Making settings

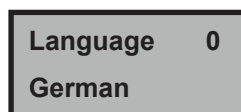
Switch off the machine.



Press the + buttons and - button at the same time and hold them, thereby switching on the machine.

Keep all three buttons pressed for about three seconds.

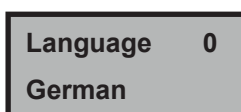
The language selection is displayed.



4.2 Language

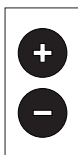


Press the + or - button to set the language.



Press the toggle switch:
Setting is saved; press next menu item
or main switch:
Setting is saved and machine is switched off.

4.3 Selecting the empty indicator



Press the + or - button to select the empty indicator:

From spreading disc resistance via agitator motor with soft agitator via external empty indicator – not programmed or empty indicator switched off.

Empty indicator 1
One disc



Press the toggle switch:

Setting is saved; press next menu item

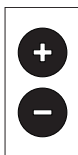
or main switch:

Setting is saved and machine is switched off.

4.4 Setting the EHR signal

When the spreader is equipped with the headland manager accessory, the hydraulic signal of the tractor can be detected. This signal is emitted when lifting or lowering.

The spreader's factory setting is to output the signal when lifting. If the tractor emits the hydraulic signal when lowering, you can adjust the spreader.



Press the + or - button to set the EHR signal.

EHR signal for lifting:

High active is displayed.

EHR signal for lowering:

Low active is displayed.

EHR signal 0
High active



Press the toggle switch:

Setting is saved; press next menu item

or main switch:

Setting is saved and machine is switched off.

4.5 Setting the EHR cycle

In the headland manager (optional accessory), you can set how often the slide should open and close depending on the lifting and lowering of the hydraulics. The EHR cycle can be set to a maximum of ten times.

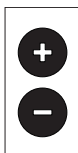
4.6 Adjusting the empty indicator

Depending on the requirement and spreading material, the empty indicator can be set to respond earlier or later.

The values can each be set from -50 to +50.

Note:

The remainder level may vary somewhat, depending on the spreading material or its humidity.

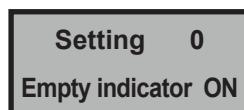


Press the + or - button to set the desired value.

Factory setting is 0.

+ values: Switch on and off at high fill level.

- values: Switch on and off at low fill level.



Press the toggle switch:

Setting is saved; press next menu item or main switch:

Setting is saved and machine is switched off.

4.7 Displaying the spreader type

The controller is intended for various spreaders.

The **SuperVario®** is programmed at the factory. You can operate several LEHNER spreaders using this control unit.



Press the toggle switch:
Setting is saved; press next menu item
or main switch:
Setting is saved and machine is switched off.

Spreader type	0
SuperVario	

4.8 Number of spreaders

This option is only activated for the Duo controller (optional accessory).

4.9 Displaying the motor

The **LIMAX®** can be equipped with two different drive motors.

The controller is programmed at the factory and set to the motor installed. The setting cannot be changed.

4.10 Headland manager (optional accessory)

If the headland manager is connected, an * is displayed at the end of the second line.

Speed	200*
Slide	29

With the headland manager, the slide is automatically opened when the hydraulics are lowered and automatically closed when lifting.

The slide can be stopped and closed **manually at any time** using the control panel.

When starting work using the headland manager, the slide must initially be opened manually.

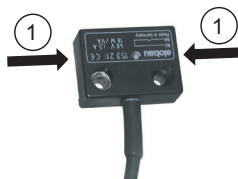
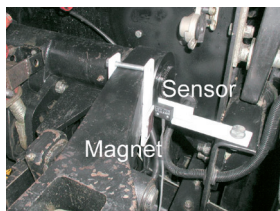
The signal can be detected by means of a 7-pin plug or a sensor signal.

7-pin socket



1. Connect the connecting cable of the control panel to the 7-pin signal plug of the tractor.
2. Set the EHR signal of the spreader depending on whether the tractor emits the hydraulic signal when lifting or lowering.

Sensor signal



3. Secure the sensor in the joint area of the lower link.
4. Secure the magnetic encoder to the lower link.
5. Set the position of the sensor and the magnetic encoder.

Maximum distance 10 mm.

- Hydraulics lowered:
Sensor is not within range of magnetic encoder.
Hydraulics at the height where the slide should close or open:
Sensor has reached limit of range of magnetic encoder.
- Hydraulics lifted:
Sensor must still be within the range of magnetic encoder. When the hydraulics are lifted, the sensor must not go out of range of the magnetic encoder, as otherwise the slide will open again.

Please note that the contact surfaces **1** of the sensor are only located on the left and right sides.

4.11 Checks

Voltage check

In order to check the operating voltage (in V), the spreader must be on and the hopper filled.



Press the button for five seconds.

The operating voltage is displayed for eight seconds.

Voltage 14.0 V

**Factory recommendation: min.
12.6 V**

Performance check

The motor is set at the factory. No changes are permitted, otherwise the drive and control parameters no longer match.

To check the performance data, the spreader must be on.



Keep button pressed.

The following information is displayed:

TLB 23.4W 201

91 R 3.4 V 6.9 A

Line 1: current drive motor, power consumption in watts and the exact speed.

Line 2: R value for factory-internal data, the motor voltage in volts, the current consumption of the motor in ampere.

4.12 Spreading width and turning procedure

Reference values for the spreading widths of individual spreading materials are available in the spreading charts included.

If you turn the spreader, please note that the spreading material continues to roll on firm surfaces, while on the field it falls directly into the surface soil. In addition, the flow quantities differ from the testing values due to various vibrations during field use.

Turning down

1. Put the spreader in the carton or put the carton over the spreader to catch the spreading material.
2. Set the speed of the spreading disc, the speed must be the speed used in practice due to the suction effect.
3. Weigh the ejected spreading material at various slide positions until the suitable slide position is determined.

Determining the spreading width

1. Spread on a firm surface.
2. Sweep up and weigh the spreading material.

Formulae

$$\frac{\text{Discharge volume in kg/min} \times 600}{\text{Output rate in kg/ha} \times \text{spreading width in m}} = \text{speed in km/h}$$

$$\frac{\text{Discharge volume in kg/min} \times 600}{\text{Speed in km/h} \times \text{spreading width in m}} = \text{output rate in kg/ha}$$

$$\frac{\text{Output rate in kg/ha} \times \text{speed in km/h} \times \text{spreading width in m}}{600} = \text{discharge volume in kg/min}$$

4.13 Setting the auto-dose (special accessory)



Press the buttons.

The speed of the spreading disc and the slide opening are displayed.

The slide is always closed at switch-on.

> Speed 200

Slide 29

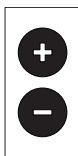


Press the button.

The selected spreading material, the working width, and the output rate in kg/ha are displayed.



Press the button, the spreading material designation “flashes”.



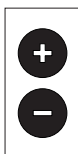
Press the + or - button to change spreading material (e.g. from yellow mustard to Metarex).

While the 7-pin plug or GPS receiver are not plugged in, the full name of the spreading material is displayed.



Press the button to confirm the choice of spreading material.

Working width “flashes”.

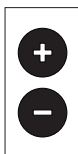


Press the + or - button to set the working width.



Press the button to confirm the choice of working width.

Output rate kg/ha “flashes”.



Press the + or - button to set the output rate.



Press the button to confirm the output rate in kg/ha.

The control panel is programmed for automatic operation.

The selected spreading material, the working width, and the output rate in kg/ha are displayed.



Hold the button down for at least five seconds.

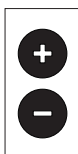
The quantity adjustment is displayed in %.

Here, you can change the output rate yourself if you find you are using too much or too little.



Press the button.

Speed impulse - - - 1/m is displayed.



Press the + or - button to set the impulses per metre that are emitted by the tractor (you will find further information in the tractor's operating manual).



Press the button.

The quantity adjustment is displayed in %.



Press the button.

The selected spreading material, the working width, and the output rate in kg/ha are displayed.

The speed impulses per metre are set.

The control is ready to start.

In GPS mode, no impulse setting is required.

The spreading value stored in the spreading chart can be changed temporarily.



Set the quantity adjustment.

Press the button for around five seconds.



Press the + button to increase the spreading value up to 50%.



Press the - button to decrease the spreading value up to 50%.



Press the button to return to operating mode.

Qty. adjustment

0%



Press the button.

The quantity adjustment has been stored. The quantity adjustment remains stored until the spreading material in the display is switched or changed.

4.14 Operating the LIMAX® in automatic mode

Connect the speed signal (GPS receiver or 7-pin signal socket).

The stored table value continues to appear in the display. The quantity adjustment in % is performed automatically from the control console.



Press the button.

The speed of the spreading disc and the slide opening are displayed.

The slide is always closed at switch-on.

> Speed	200
Slide	29



Press the button.

The selected spreading material, the working width, and the output rate in kg/ha are displayed.

If a speed signal is connected, the speed travelled at is also displayed along with the spreading material.



Press the button to open the slide.

With the vehicle stationary, set off within five seconds, otherwise the message "Slide not open" appears.

If the slide is open, the message "Open" and the relevant slide opening, e.g. "Open 46" appear; the speed travelled at is also displayed.

OPEN 46	5.9km/h
15.0 m	25.0 kg/ha

If the travel speed is higher than the value stored in the spreading chart in the controller, the message "Too fast" appears in the display. Only the maximum speed stored in the spreading chart is included in the calculation, not the actual travel speed.

OPEN 120	33.2km/h
Too fast	

If the travel speed is lower than the value stored in the spreading chart in the controller, the message “Too slow” appears in the display. The minimum speed stored in the spreading chart is included in the calculation, not the actual travel speed.

Metarex 2 km

Too slow

At a travel speed less than 3 km/h, the software does not work correctly, and the message “Slide not open” appears.

Slide not open

After the vehicle has stopped and set off again, press the “Slide open” button again to open the slide.

When working with the headland manager, this step is unnecessary.

At present, our spreading charts are designed for a maximum speed of 44 km/h, depending on the spreading material. At speeds faster than 44 km/h, the error message “Too fast” appears, depending on the spreading material.

Note:

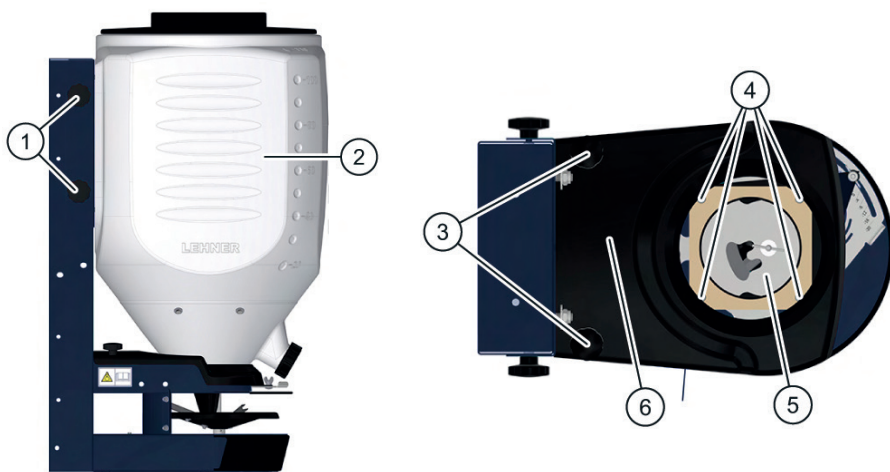
A total of 12 spreading tables can be stored in the control panel. This setting can only be made at the factory.

5. Maintenance and cleaning

5.1 Maintenance

The dosing device and slide should be inspected and cleaned from time to time.

In particular, spreading material with a high dust content can cause the slide unit to clog.



1. Remove screws **1** on the right and left.
2. Remove hopper **2**.
3. Remove screws **3**.
4. Remove cover plate **6**.
5. Firmly hold the spreading disc and turn the agitator **5** to the right.
Important: Left-hand thread!
6. Remove nuts **4**.
7. Dismantle the hopper platform and pull the dosage plate out from the top.
8. Clean the slide unit with a brush or compressed air.

With an aggressive spreading material such as silage, regularly remove and clean the motor, and fill the shaft end with grease or copper compound.

5.2 Cleaning

The hopper can be almost fully emptied by means of the residual discharge.

1. Unscrew the hopper.
2. Clean the spreader and hopper using a brush.

6. Appendix

6.1 EC Declaration of conformity

 	EC Declaration of Conformity in accordance with the EC Machinery Directive 2006/42/EC, Annex II 1.A Manufacturer: LEHNER Agrar GmbH Häuslesäcker 5-9 89198 Westerstetten Person resident in the Community who is entitled to assemble the relevant technical documents: Helmut Lehner LEHNER Agrar GmbH Häuslesäcker 5-9 89198 Westerstetten Description and identification of the machine: Product: LIMAX® Type: 70/110/170 Function: The LIMAX® is a spreader for spreading slug pellets, grasses, and catch crops such as mustard, phacelia, oil radish, and turnips. It is produced in three sizes. These differ in the hopper capacity, 70, 110 and 170 litres. There is a stirring shaft on the spreading disc which protrudes into the hopper. This keeps the spreading material free-flowing in the area of the dosing opening. The dosing and the speed of the spreading disc are continuously controlled from the driver's cab via the control panel. Optionally, a separate motor drives a slow-running agitator, which can be installed horizontally (soft agitator).
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It is expressly declared that the machine is in accordance with all relevant provisions of the following EC Directives:

2006/42/EC	EC Machinery Directive 2006/42/EC
2004/108/EC	(Electromagnetic Compatibility) Directive 2004/108/EC of the European Parliament and of the Council dated 15 December 2004 on the approximation of the laws of the Member States relating to electromagnetic compatibility and repealing Directive 89/336/EEC

Source of the applied harmonised standard acc. to Article 7, para. 2:

EN ISO 12100-2:2003-11	Safety of Machinery – Basic concepts; general principles for design – Part 2 Technical principles
EN ISO 14121-1:2007	Safety of machinery – Risk assessment – Part 1: Principles (ISO14121-1:2007)
EN 50498:2010	Electromagnetic compatibility – Product family standard for electronic equipment installed subsequently in vehicles
EN ISO 14982:2009	Electromagnetic compatibility – Parts of agricultural and forestry machinery

Source of the applied other technical standards and specifications:

EN ISO 12100-1:2003-11	Safety of Machinery – Basic concepts; general principles for design – Part 1: Basic terminology, methodology
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Westerstetten, 27.08.2018



Place, date

Signature
Helmut Lehner
CEO

6.2 Identification

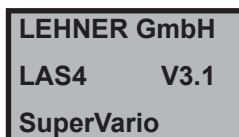
The serial number of the spreader is applied to the rear of the frame.

Note the serial number in this operating manual so that it is readily available for inquiries.

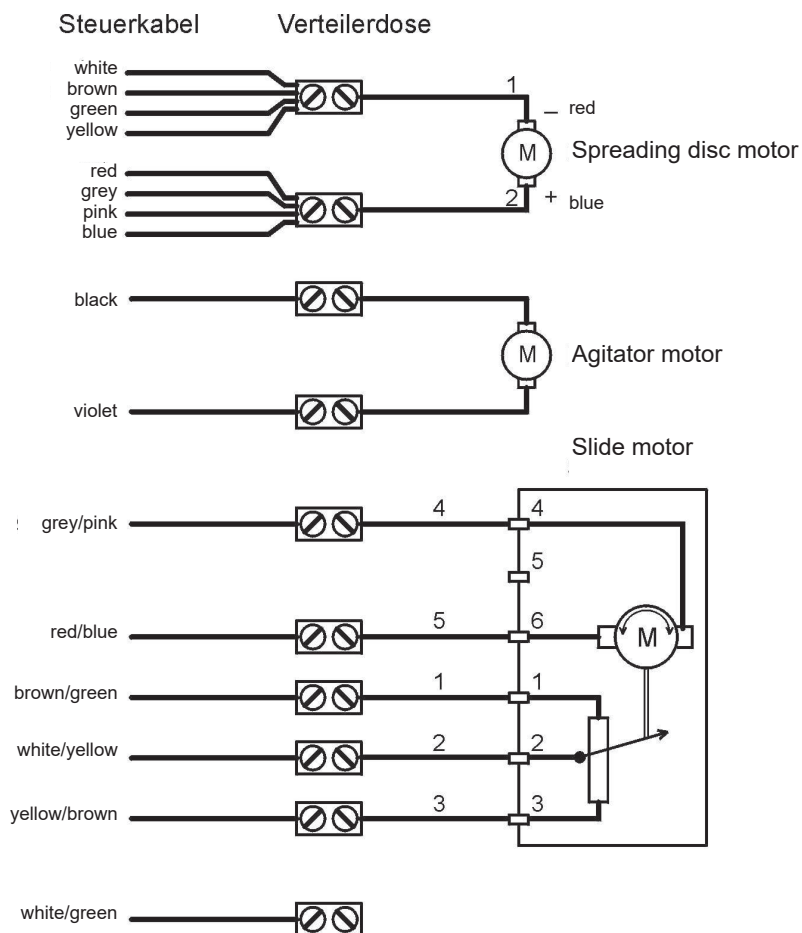


The hardware and software versions are briefly displayed when the control panel is switched on.

Note the software version in this operating manual so that it is readily available for inquiries.



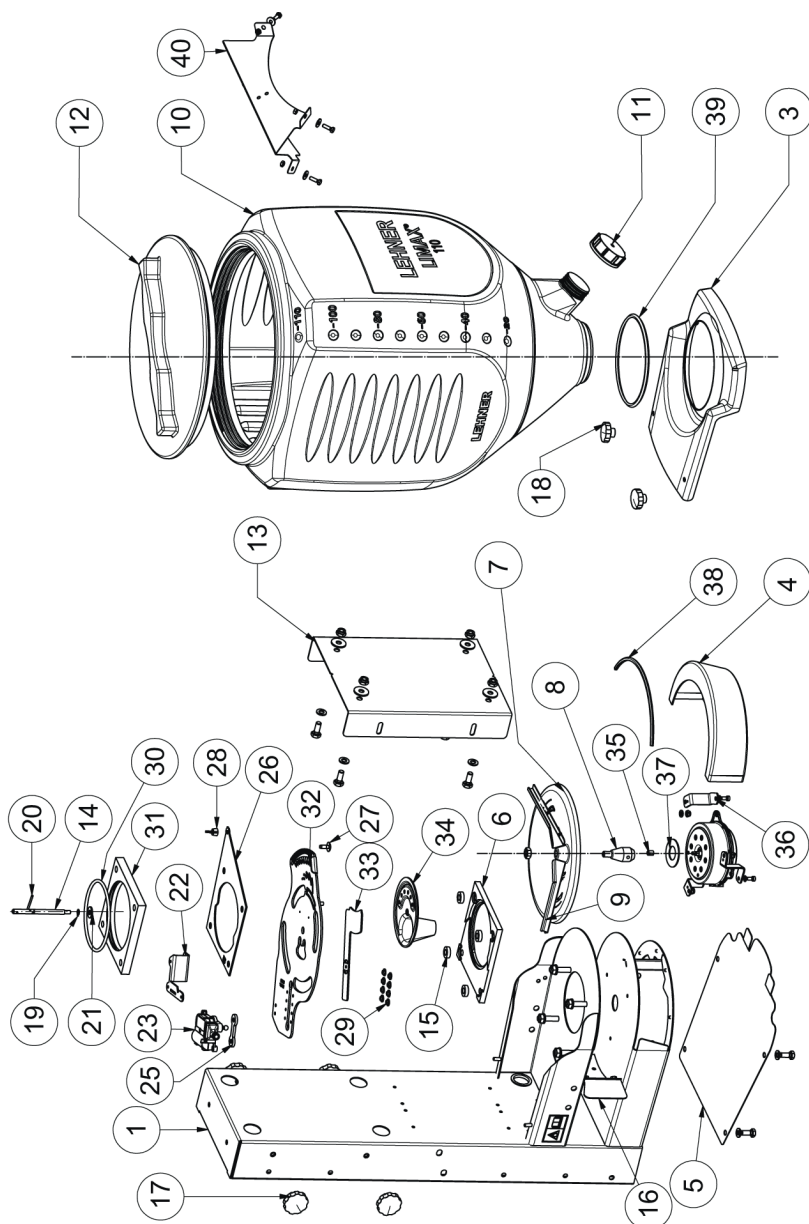
6.3 Distribution box reference list



6.4 Troubleshooting

Troubleshooting the LEHNER LIMAX® The following information is intended to help you resolve minor problems yourself. You are welcome to call us as needed. We are glad to help. Last updated 09/2018		
Problem	Cause	Solution
Nothing shown in the display after switching on.	Polarity reversed or fuse has blown.	Check connections and fuse.
Agitator does not rotate.	Foreign bodies on the agitator.	Empty hopper and check for foreign bodies. Remove upper stirring shaft.
Spreading disc does not reach speed.	Upper stirring shaft installed / power supply. Very strong vibrations and resulting settling of the material. Foreign bodies on the agitator, load too great or power supply too low.	Place lower stirring shaft in centre. Order and install "load relief roof" accessory. Check agitator, agitator paddle, see "Setting the agitator", check power supply, see "Mounting the control panel".
Slide jams.	Spreading material or dirt is jammed between the slide plates.	Clean slide, see "Cleaning".
On the display: Disc blockage.	Spreading disc does not turn; switched off after 10 attempts. Material may be compacted.	Check agitator, agitator panel, see "Setting the agitator". Possibly start spreader again.
On the display: Slide not open.	Slide could not go into position when opening.	Check slide for contamination, or perform reference run; see section "Reference run for slide, cable not plugged in, motor defective".
On the display: Slide not closed.	Slide could not go into position when closing.	Check slide mechanics for foreign bodies, or perform reference run. See "Perform slide reference run".
Slide does not open although no error message is displayed.	Mechanical damage to slide mechanism.	Check slide motor and transfer mechanism.
On the display: Spr. connection.	Control panel plug not connected to spreader or cable damaged/voltage drop.	Check plug connections, cables, socket and pins.
Empty indicator does not respond.	Empty indicator is set too low.	Set empty indicator, see "4.6 Adjusting the empty indicator" on page 22. If this does not help, please perform item 3.11 Calibrating the empty indicator" on page 19.
Headland manager closes the slide when lowering hydraulics and opens when lifting them.	Signal incorrectly applied.	Rotate signal, see "Setting the EHR signal".
Display reads 8888 or letters.	Faulty control panel.	Control panel must be replaced.
Headline manager closes unreliably.	Distance between sensor and magnetic encoder too great.	Check distance to left/right of sensor, max. 10 mm.

6.5 Spare parts list

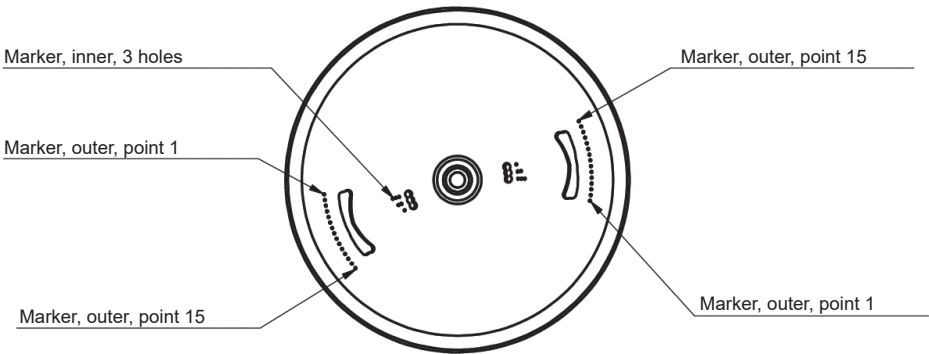


Item	Number	Component number	LEHNER Part number
1	1	Base frame	82335
2	5	Hexagon nut DIN 934 - M10 (not shown)	-
3	1	Hood RAL 9005	82320
4	1	Front panel RAL 9005	82321
5	1	Base plate RAL 5021	82336
6	1	Striking point adjustment base plate	82348
7	1	Spreading disc excluding casting blades	82345
8	1	Spreading disc hub	82346
9	2	Casting blade	82344
10	1	Hopper 110 litre outlet	81076
11	1	Cover for residual discharge, black	80393
12	1	Cover for 70, 100, 110, 170 and 250 litre hopper	80107
13	1	Hopper bracket 110 litre	80342
14	1	Agitator shaft	82347
15	4	Striking point adjustment spacer d 10.2 x 20.0 x 6	82352
16	1	Impact plate	82337
17	4	Star grip screws 50 mm M8x14 mm	80116
18	2	Star grip nuts 40mm M6	80308
19	1	Circlip BS 3673/1 - S008M	-
20	1	Dowel pin ISO 8752 - 3 x 40	-
21	1	Sealing disc	73215
22	1	Slide motor retaining plate	82343
23	1	LIMAX® slide motor incl. cable	81448
24	1	Cable seal for actuator	81686
25	1	Double spherical bearings, black	73213
26	1	Arrow plate strike point	82342
27	1	Carriage bolt DIN 603 - M6 x 16	-

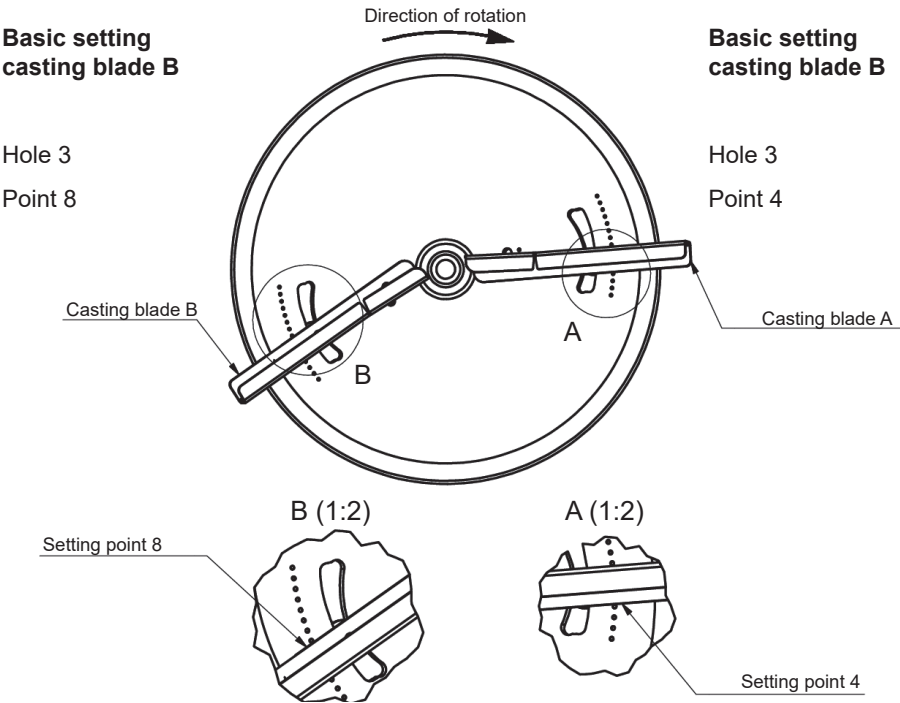
28	1	Wing nut DIN 315 - M6	-
30	1	Hopper seal	81395
31	1	Hopper platform with straight groove	80264
32	1	Rotary disc strike point	82340
33	1	Slide strike point	82341
34	1	Transfer funnel	82349
35	1	Shaft adapter for 11TA30	82403
36	1	Z-bracket motor holder for 11TA30	82405
37	3	Spacer ring for 11TA30	82406
38	1	Blank edge guard without padding	80258
39	1	Blank edge guard with padding	80670
40	1	LIMAX® load relief cover	81139
	1	6 m control cable with connector fitted (not shown)	80658
	1	Hopper 170 litre outlet (optional)	81077
	2	Hopper bracket for 170 litre hopper (optional)	81206
	1	Hopper 70 litre outlet (optional)	81075
	1	Hopper bracket for 70 litre hopper (optional)	81556

6.6 Description of LIMAX® spreading disc

Definition of markers

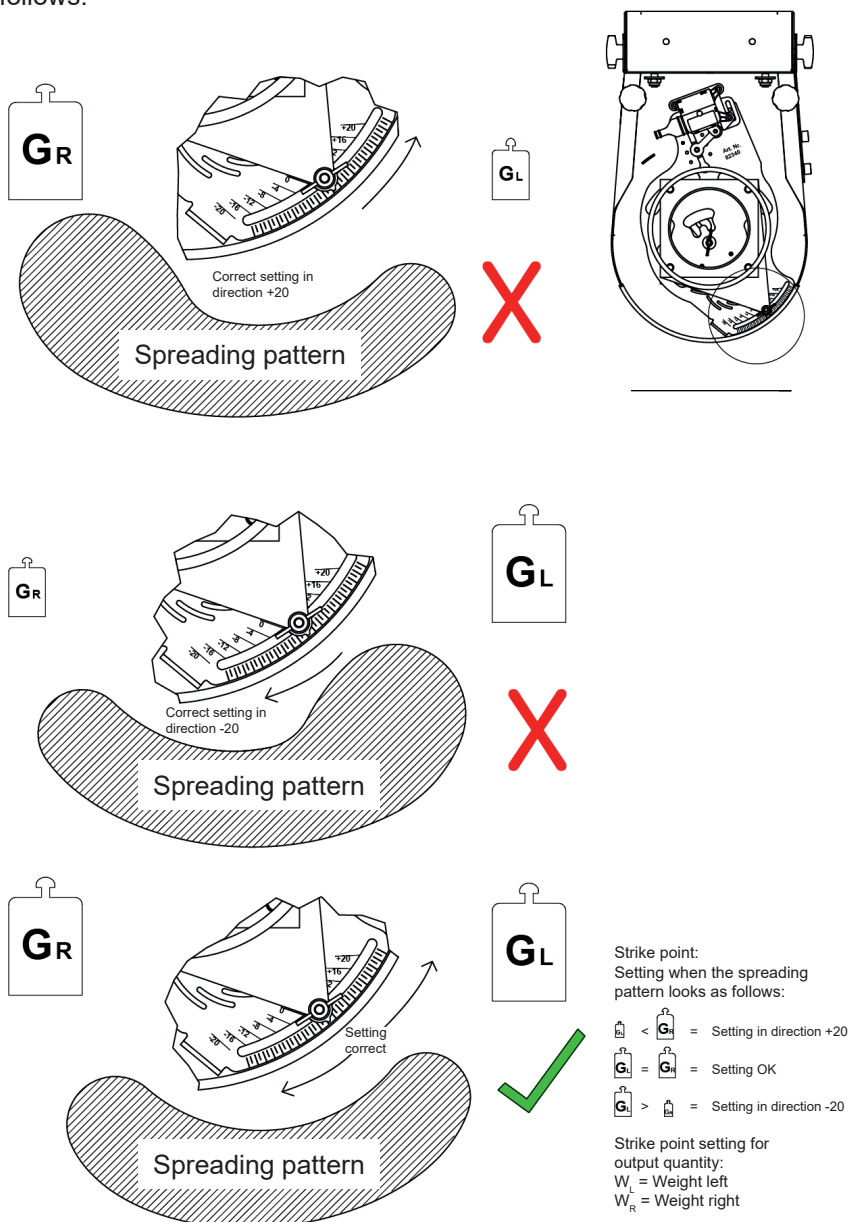


Casting blade basic setting



6.7 Strike point adjustment setting

The following settings should be made so that the lateral distribution looks as follows:



6.8 Spreading charts

For large working widths, wind speed should be noted to avoid incorrect spreading.

At lower delivery heights, the speed of the disc must be increased.

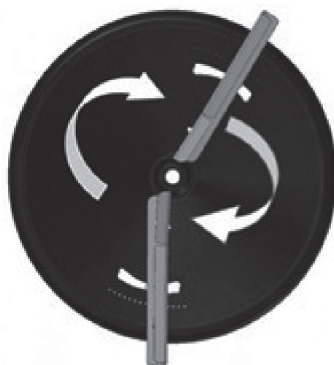
If side distribution is uneven, adjust casting blades.

The speed may decrease at upper working width. In this case, please shorten stirring shaft by half.

The suction effect of the spreading disc increases as the speed increases.

This spreading table has not been field-tested!

The setting values in this spreading table are only guide values. We cannot accept liability for any damage caused.



Spreading table with reference values, 3.0 mm slug pellets																	Last updated 8 May 2019			
Working width [m]		3.0 m					4.0 m					6.0 m								
Speed [rpm]		460 rpm					480 rpm					520 rpm								
Speed [km/h]		6	8	10	12	15	6	8	10	12	15	6	8	10	12	15				
3.0 kg/ha		16	17	18	19	21	17	19	20	21	23	19	21	23	25	28				
5.0 kg/ha		18	20	22	24	26	20	22	25	27	30	23	27	30	33	37				
7.0 kg/ha		21	23	25	27	31	23	26	29	32	36	27	32	36	40	46				
Strike point adjustment		6					3					3								
Spreading disc setting		Casting blade A		Hole		3	Casting blade A		Hole		3	Casting blade A		Hole		3				
				Point		1			Point		1	Casting blade A		Point		1				
		Casting blade B		Hole		3	Casting blade B		Hole		3	Casting blade B		Hole		3				
				Point		1			Point		1	Casting blade B		Point		1				
Working width [m]		9.0 m					12.0 m					15.0 m								
Speed [rpm]		610 rpm					750 rpm					910 rpm								
Speed [km/h]		6	8	10	12	15	6	8	10	12	15	6	8	10	12	15				
3.0 kg/ha		22	25	28	31	35	24	28	32	35	40	27	31	35	39	45				
5.0 kg/ha		28	32	37	41	47	32	37	43	48	56	35	42	48	54	63				
7.0 kg/ha		33	39	45	51	59	38	46	53	60	70	43	52	60	68	81				
Strike point adjustment		0					0					-3								
Spreading disc setting		Casting blade A		Hole		3	Casting blade A		Hole		3	Casting blade A		Hole		3				
				Point		1			Point		1	Casting blade A		Point		1				
		Casting blade B		Hole		3	Casting blade B		Hole		3	Casting blade B		Hole		3				
				Point		1			Point		1	Casting blade B		Point		1				
Min. slide setting		5																		
Max. slide setting		75																		
Min. speed		100 rpm																		
Max. speed		2500 rpm																		

Spreading table with reference values, 3.0 mm slug pellets																	Last updated 8 May 2019			
Working width [m]		17.0 m					19.0 m					21.0 m								
Speed [rpm]		1040 rpm					1190 rpm					1350 rpm								
Speed [km/h]		6	8	10	12	15	6	8	10	12	15	6	8	10	12	15				
3.0 kg/ha		28	32	37	41	48	29	34	39	43	50	30	35	40	45	52				
5.0 kg/ha		37	44	51	57	67	39	46	53	60	70	40	48	56	63	73				
7.0 kg/ha		45	55	64	72	X	48	58	67	X	X	50	60	69	X	X				
Strike point adjustment		-6					-8					-8								
Spreading disc setting		Casting blade A		Hole		3	Casting blade A		Hole		3	Casting blade A		Hole		3				
				Point		1			Point		1			Point		1				
		Casting blade B		Hole		3	Casting blade B		Hole		3	Casting blade B		Hole		3				
				Point		1			Point		1			Point		1				
Working width [m]		24.0 m					27.0 m					31.0 m								
Speed [rpm]		1630 rpm					1940 rpm					2410 rpm								
Speed [km/h]		6	8	10	12	15	6	8	10	12	15	6	8	10	12	15				
3.0 kg/ha		31	37	42	47	54	32	38	43	49	57	33	39	45	51	59				
5.0 kg/ha		42	50	58	66	X	43	52	61	68	X	45	54	63	71	X				
7.0 kg/ha		52	63	73	X	X	54	65	X	X	X	56	68	X	X	X				
Strike point adjustment		-10					-16					-16								
Spreading disc setting		Casting blade A		Hole		3	Casting blade A		Hole		3	Casting blade A		Hole		3				
				Point		1			Point		1			Point		1				
		Casting blade B		Hole		3	Casting blade B		Hole		3	Casting blade B		Hole		3				
				Point		1			Point		1			Point		1				

Mln. slide setting	5
Max. slide setting	75
Mln. speed	100 rpm
Max. speed	2500 rpm

Spreading table with reference values, 2.5 mm slug pellets																	Last updated 8 May 2019			
Working width [m]		3.0 m						4.0 m						5.0 m						
Speed [rpm]		460 rpm						480 rpm						500 rpm						
Speed [km/h]		6	8	10	12	15	6	8	10	12	15	6	8	10	12	15				
3.0 kg/ha		18	19	19	19	19	19	19	19	19	20	19	19	20	20	21				
5.0 kg/ha		19	19	20	20	21	19	20	20	21	22	20	20	21	22	23				
7.0 kg/ha		19	20	21	21	22	20	21	22	23	24	20	22	23	24	27				
Strike point adjustment		6						3						3						
Spreading disc setting		Casting blade A			Hole			Casting blade A			Hole			Casting blade A			Hole			
					Point						Point			Point						
		Casting blade B			Hole			Casting blade B			Hole			Casting blade B			Hole			
					Point						Point			Point			Point			
Working width [m]		9.0 m						12.0 m						15.0 m						
Speed [rpm]		610 rpm						750 rpm						910 rpm						
Speed [km/h]		6	8	10	12	15	6	8	10	12	15	6	8	10	12	15				
3.0 kg/ha		20	20	21	22	24	20	21	23	24	26	21	22	24	26	29				
5.0 kg/ha		21	23	25	27	30	23	25	28	30	35	24	27	30	34	41				
7.0 kg/ha		23	26	29	32	38	25	29	34	39	47	28	33	38	45	57				
Strike point adjustment		0						0						-3						
Spreading disc setting		Casting blade A			Hole			Casting blade A			Hole			Casting blade A			Hole			
					Point						Point			Point						
		Casting blade B			Hole			Casting blade B			Hole			Casting blade B			Hole			
					Point						Point			Point			Point			
Min. slide setting		5																		
Max. slide setting		75																		
Min. speed		100 rpm																		
Max. speed		2500 rpm																		

Spreading table with reference values, 2.5 mm slug pellets																	Last updated 8 May 2019				
Working width [m]		17.0 m					19.0 m					21.0 m									
Speed [rpm]		1040 rpm					1190 rpm					1350 rpm									
Speed [km/h]		6	8	10	12	15	6	8	10	12	15	6	8	10	12	15					
3.0 kg/ha		21	23	25	27	30	22	23	25	X	31	22	24	26	29	33					
5.0 kg/ha		25	28	32	36	44	25	29	34	39	47	26	30	35	41	50					
7.0 kg/ha		29	35	41	49	63	30	37	44	53	68	31	38	47	57	74					
Strike point adjustment		-6					-8					-8									
Spreading disc setting		Casting blade A		Hole		3	Casting blade A		Hole		3	Casting blade A		Hole		3					
				Point		1			Point		1			Point		1					
		Casting blade B		Hole		3	Casting blade B		Hole		3	Casting blade B		Hole		3					
				Point		5			Point		5			Point		5					
Working width [m]		24.0 m					27.0 m					31.0 m									
Speed [rpm]		1630 rpm					1940 rpm					2410 rpm									
Speed [km/h]		6	8	10	12	15	6	8	10	12	15	6	8	10	12	15					
3.0 kg/ha		22	25	27	30	34	23	25	28	31	36	23	26	29	32	37					
5.0 kg/ha		27	32	37	43	54	28	33	39	46	58	29	34	41	48	62					
7.0 kg/ha		33	41	50	62	X	34	43	54	66	X	36	45	57	71	X					
Strike point adjustment		-10					-16					-16									
Spreading disc setting		Casting blade A		Hole		3	Casting blade A		Hole		3	Casting blade A		Hole		3					
				Point		1			Point		1			Point		1					
		Casting blade B		Hole		3	Casting blade B		Hole		3	Casting blade B		Hole		3					
				Point		5			Point		5			Point		5					

Min. slide setting	5
Max. slide setting	75
Min. speed	100 rpm
Max. speed	2500 rpm

Spreading table with reference values, Arinex slug pellets																	Last updated 8 May 2019				
Working width [m]		3.0 m					4.0 m					5.0 m									
Speed [rpm]		460 rpm					480 rpm					500 rpm									
Speed [km/h]		6	8	10	12	15	6	8	10	12	15	6	8	10	12	15	15				
3.0 kg/ha		8	9	10	11	12	9	10	12	13	15	10	12	13	15	17	17				
5.0 kg/ha		10	12	13	15	17	12	14	16	18	21	13	16	18	21	25	25				
7.0 kg/ha		12	14	16	19	22	14	17	20	23	28	16	20	24	27	33	33				
Strike point adjustment		6					3					3									
Spreading disc setting		Casting blade A		Hole		3	Casting blade A		Hole		3	Casting blade A		Hole		3	3				
				Point		1			Point		1			Point		1	1				
		Casting blade B		Hole		3	Casting blade B		Hole		3	Casting blade B		Hole		3	3				
				Point		1			Point		1			Point		1	1				
Working width [m]		9.0 m					12.0 m					15.0 m									
Speed [rpm]		610 rpm					750 rpm					910 rpm									
Speed [km/h]		6	8	10	12	15	6	8	10	12	15	6	8	10	12	15	15				
3.0 kg/ha		13	16	19	22	26	16	19	23	26	32	18	22	26	30	37	37				
5.0 kg/ha		19	24	28	33	40	23	29	35	40	49	26	33	40	47	57	57				
7.0 kg/ha		25	31	37	44	53	30	38	46	54	66	35	44	54	63	X	X				
Strike point adjustment		0					0					-3									
Spreading disc setting		Casting blade A		Hole		3	Casting blade A		Hole		3	Casting blade A		Hole		3	3				
				Point		1			Point		1			Point		1	1				
		Casting blade B		Hole		3	Casting blade B		Hole		3	Casting blade B		Hole		3	3				
				Point		1			Point		1			Point		1	1				
Min. slide setting		5																			
Max. slide setting		75																			
Min. speed		100 rpm																			
Max. speed		2500 rpm																			

Spreading table with reference values, Arinex slug pellets																	Last updated 8 May 2019			
Working width [m]		17.0 m					19.0 m					21.0 m								
Speed [rpm]		1040 rpm					1190 rpm					1350 rpm								
Speed [km/h]		6	8	10	12	15	6	8	10	12	15	6	8	10	12	15				
3.0 kg/ha		19	24	28	33	40	20	25	30	35	42	21	26	32	37	45				
5.0 kg/ha		28	36	43	51	62	30	38	46	54	66	32	40	49	57	70				
7.0 kg/ha		37	48	58	69	X	40	51	62	73	X	42	54	66	X	X				
Strike point adjustment		-6					-8					-8								
Spreading disc setting		Casting blade A		Hole		3	Casting blade A		Hole		3	Casting blade A		Hole		3				
				Point		1			Point		1			Point		1				
		Casting blade B		Hole		3	Casting blade B		Hole		3	Casting blade B		Hole		3				
				Point		1			Point		1			Point		1				
Working width [m]		24.0 m					27.0 m					31.0 m								
Speed [rpm]		1630 rpm					1940 rpm					2410 rpm								
Speed [km/h]		6	8	10	12	15	6	8	10	12	15	6	8	10	12	15				
3.0 kg/ha		22	28	34	39	47	23	29	35	41	50	24	31	37	43	52				
5.0 kg/ha		34	43	52	61	75	35	45	55	64	X	37	47	58	68	X				
7.0 kg/ha		45	58	70	X	X	47	61	74	X	X	49	64	X	X	X				
Strike point adjustment		-10					-16					-16								
Spreading disc setting		Casting blade A		Hole		3	Casting blade A		Hole		3	Casting blade A		Hole		3				
				Point		1			Point		1			Point		1				
		Casting blade B		Hole		3	Casting blade B		Hole		3	Casting blade B		Hole		3				
				Point		1			Point		1			Point		1				

Min. slide setting	5
Max. slide setting	75
Min. speed	100 rpm
Max. speed	2500 rpm

Spreading table with reference values, SLUXX HP slug pellets																	Last updated 8 May 2019			
Working width [m]		3.0 m						4.0 m						5.0 m						
Speed [rpm]		460 rpm						480 rpm						500 rpm						
Speed [km/h]		6	8	10	12	15	6	8	10	12	15	6	8	10	12	15				
3.0 kg/ha		10	10	11	12	13	10	11	13	14	15	11	13	14	15	17				
5.0 kg/ha		11	13	14	15	18	13	14	16	18	21	14	16	19	21	25				
7.0 kg/ha		13	15	17	19	22	15	18	20	23	27	17	20	23	27	32				
Strike point adjustment		6						3						3						
Spreading disc setting		Casting blade A		Hole		3	Casting blade A		Hole		3	Casting blade A		Hole		3				
				Point		1			Point		1			Point		1				
		Casting blade B		Hole		3	Casting blade B		Hole		3	Casting blade B		Hole		3				
Point				1	Point				1	Point				1						
Working width [m]		9.0 m						12.0 m						15.0 m						
Speed [rpm]		610 rpm						750 rpm						910 rpm						
Speed [km/h]		6	8	10	12	15	6	8	10	12	15	6	8	10	12	15				
3.0 kg/ha		14	17	19	22	25	16	19	23	26	30	30	18	22	26	29				
5.0 kg/ha		19	23	27	31	38	23	28	33	38	46	46	26	32	38	44				
7.0 kg/ha		24	30	36	41	50	29	36	44	51	62	62	33	42	51	60				
Strike point adjustment		0						0						-3						
Spreading disc setting		Casting blade A		Hole		3	Casting blade A		Hole		3	Casting blade A		Hole		3				
				Point		1			Point		1			Point		1				
		Casting blade B		Hole		3	Casting blade B		Hole		3	Casting blade B		Hole		3				
Point				1	Point				1	Point				1						
Min. slide setting		5																		
Max. slide setting		75																		
Min. speed		100 rpm																		
Max. speed		2500 rpm																		

Spreading table with reference values, SLUXX HP slug pellets																	Last updated 8 May 2019			
Working width [m]		17.0 m					19.0 m					21.0 m								
Speed [rpm]		1040 rpm					1190 rpm					1350 rpm								
Speed [km/h]		6	8	10	12	15	6	8	10	12	15	6	8	10	12	15				
3.0 kg/ha		19	23	27	31	38	20	25	29	33	40	21	26	30	35	42				
5.0 kg/ha		27	34	41	48	58	29	36	44	51	62	30	38	46	54	66				
7.0 kg/ha		36	45	55	65	X	38	48	59	69	X	40	51	62	73	X				
Strike point adjustment		-6					-8					-8								
Spreading disc setting		Casting blade A		Hole		3	Casting blade A		Hole		3	Casting blade A		Hole		3				
				Point		1			Point		1			Point		1				
		Casting blade B		Hole		3	Casting blade B		Hole		3	Casting blade B		Hole		3				
				Point		1			Point		1			Point		1				
Working width [m]		24.0 m					27.0 m					31.0 m								
Speed [rpm]		1630 rpm					1940 rpm					2410 rpm								
Speed [km/h]		6	8	10	12	15	6	8	10	12	15	6	8	10	12	15				
3.0 kg/ha		22	27	32	37	45	23	28	34	39	47	24	29	35	41	49				
5.0 kg/ha		32	41	49	58	70	34	43	51	60	74	35	45	54	64	X				
7.0 kg/ha		42	54	66	X	X	44	57	70	X	X	47	60	73	X	X				
Strike point adjustment		-10					-16					-16								
Spreading disc setting		Casting blade A		Hole		3	Casting blade A		Hole		3	Casting blade A		Hole		3				
				Point		1			Point		1			Point		1				
		Casting blade B		Hole		3	Casting blade B		Hole		3	Casting blade B		Hole		3				
				Point		1			Point		1			Point		1				

Min. slide setting	5
Max. slide setting	75
Min. speed	100 rpm
Max. speed	2500 rpm

Spreading table with reference values, lentil-shaped slug pellets																	Last updated 8 May 2019			
Working width [m]		3.0 m						4.0 m						5.0 m						
Speed [rpm]		380 rpm						420 rpm						470 rpm						
Speed [km/h]		6	8	10	12	15	15	6	8	10	12	15	15	6	8	10	12	15		
3.0 kg/ha		14	15	15	15	16	16	15	16	16	17	18	18	16	17	18	18	19		
5.0 kg/ha		15	16	16	17	18	18	16	17	18	19	20	20	18	19	20	20	22		
7.0 kg/ha		16	17	18	18	20	20	17	18	20	21	22	22	19	20	21	23	25		
Strike point adjustment		6						3						3						
Spreading disc setting		Casting blade A		Hole		3		Casting blade A		Hole		3		Casting blade A		Hole		3		
		Point		Point		1		Point		Point		1		Point		Point		1		
		Casting blade B		Hole		3		Casting blade B		Hole		3		Casting blade B		Hole		3		
		Point		Point		1		Point		Point		1		Point		Point		1		
Working width [m]		9.0 m						12.0 m						15.0 m						
Speed [rpm]		670 rpm						850 rpm						1050 rpm						
Speed [km/h]		6	8	10	12	15	15	6	8	10	12	15	15	6	8	10	12	15		
3.0 kg/ha		20	20	21	22	23	23	21	22	23	24	26	26	26	22	23	24	26		
5.0 kg/ha		21	23	24	25	28	28	23	25	26	28	30	30	30	24	26	28	30		
7.0 kg/ha		23	25	27	29	32	32	25	27	30	32	35	35	35	27	29	32	34		
Strike point adjustment		0						0						-3						
Spreading disc setting		Casting blade A		Hole		3		Casting blade A		Hole		3		Casting blade A		Hole		3		
		Point		Point		1		Point		Point		1		Point		Point		1		
		Casting blade B		Hole		3		Casting blade B		Hole		3		Casting blade B		Hole		3		
		Point		Point		1		Point		Point		1		Point		Point		1		
Min. slide setting		5																		
Max. slide setting		75																		
Min. speed		100 rpm																		
Max. speed		2500 rpm																		

Spreading table with reference values, lentil-shaped slug pellets																	Last updated 8 May 2019				
Working width [m]		17.0 m					19.0 m					21.0 m									
Speed [rpm]		1200 rpm					1350 rpm					1510 rpm									
Speed [km/h]		6	8	10	12	15	6	8	10	12	15	6	8	10	12	15					
3.0 kg/ha		23	24	25	26	28	23	24	26	27	29	23	25	26	27	29					
5.0 kg/ha		25	27	29	31	34	26	28	30	32	35	26	28	31	33	36					
7.0 kg/ha		27	30	33	36	40	28	31	34	37	42	29	32	35	39	44					
Strike point adjustment		-6					-8					-8									
Spreading disc setting		Casting blade A		Hole		3	Casting blade A		Hole		3	Casting blade A		Hole		3					
				Point		1			Point		1			Point		1					
		Casting blade B		Hole		3	Casting blade B		Hole		3	Casting blade B		Hole		3					
				Point		1			Point		1			Point		1					
Working width [m]		24.0 m					27.0 m					31.0 m									
Speed [rpm]		1780 rpm					2060 rpm					2470 rpm									
Speed [km/h]		6	8	10	12	15	6	8	10	12	15	6	8	10	12	15					
3.0 kg/ha		24	25	27	28	30	24	25	27	29	31	25	25	27	29	35					
5.0 kg/ha		27	29	32	35	39	27	30	33	37	43	27	31	39	49	69					
7.0 kg/ha		30	33	37	42	48	30	35	41	47	57	33	44	62	X	X					
Strike point adjustment		-10					-16					-16									
Spreading disc setting		Casting blade A		Hole		3	Casting blade A		Hole		3	Casting blade A		Hole		3					
				Point		1			Point		1			Point		1					
		Casting blade B		Hole		3	Casting blade B		Hole		3	Casting blade B		Hole		3					
				Point		1			Point		1			Point		1					

Min. slide setting	5
Max. slide setting	75
Min. speed	100 rpm
Max. speed	2500 rpm

Spreading table with reference values, pillow-shaped slug pellets																Last updated 8 May 2019				
Working width [m]		3.0 m					4.0 m					5.0 m								
Speed [rpm]		460 rpm					480 rpm					500 rpm								
Speed [km/h]		6	8	10	12	15	6	8	10	12	15	6	8	10	12	15				
3.0 kg/ha		16	16	17	17	18	17	17	18	18	19	17	18	18	19	20	15	12	12	15
5.0 kg/ha		17	17	18	18	19	18	18	19	20	21	18	19	20	21	22	19	19	20	22
7.0 kg/ha		17	18	19	20	21	18	19	20	21	23	19	21	22	23	25	3			
Strike point adjustment		6					3					3								
Spreading disc setting		Casting blade A		Hole		3	Casting blade A		Hole		3	Casting blade A		Hole		3	Casting blade A		Hole	
		Casting blade B		Point		1	Casting blade B		Point		1	Casting blade B		Point		1	Casting blade B		Point	
		Casting blade B		Point		3	Casting blade B		Point		3	Casting blade B		Point		3	Casting blade B		Point	
Working width [m]		9.0 m					12.0 m					15.0 m								
Speed [rpm]		610 rpm					750 rpm					910 rpm								
Speed [km/h]		6	8	10	12	15	6	8	10	12	15	6	8	10	12	15				
3.0 kg/ha		19	20	21	22	23	21	22	23	24	25	25	22	23	24	25				
5.0 kg/ha		21	22	24	25	28	23	25	26	28	31	31	24	26	28	30				
7.0 kg/ha		23	25	27	29	32	25	27	30	32	36	36	27	29	32	35				
Strike point adjustment		0					0					-3								
Spreading disc setting		Casting blade A		Hole		3	Casting blade A		Hole		3	Casting blade A		Hole		3	Casting blade A		Hole	
		Casting blade B		Point		1	Casting blade B		Point		1	Casting blade B		Point		1	Casting blade B		Point	
		Casting blade B		Point		3	Casting blade B		Point		3	Casting blade B		Point		3	Casting blade B		Point	
Min. slide setting		5																		
Max. slide setting		75																		
Min. speed		100 rpm																		
Max. speed		2500 rpm																		

Spreading table with reference values, pillow-shaped slug pellets																	Last updated 8 May 2019				
Working width [m]			17.0 m					19.0 m					21.0 m								
Speed [rpm]			1040 rpm					1190 rpm					1350 rpm								
Speed [km/h]			6	8	10	12	15	6	8	10	12	15	6	8	10	12	15				
3.0 kg/ha			23	24	25	26	28	23	24	26	27	29	23	25	26	28	30				
5.0 kg/ha			25	27	29	31	35	26	28	30	32	36	26	29	31	33	37				
7.0 kg/ha			28	31	34	36	41	28	32	35	38	43	29	32	36	39	44				
Strike point adjustment			-6					-8					-8								
Spreading disc setting			Casting blade A		Hole		3	Casting blade A		Hole		3	Casting blade A		Hole		3				
					Point		1			Point		1			Point		1				
			Casting blade B		Hole		3	Casting blade B		Hole		3	Casting blade B		Hole		3				
					Point		1			Point		1			Point		1				
Working width [m]			24.0 m					27.0 m					31.0 m								
Speed [rpm]			1630 rpm					1940 rpm					2410 rpm								
Speed [km/h]			6	8	10	12	15	6	8	10	12	15	6	8	10	12	15				
3.0 kg/ha			24	25	27	28	31	24	25	27	29	32	25	25	26	28	33				
5.0 kg/ha			27	29	32	35	39	27	30	33	36	42	26	30	36	45	62				
7.0 kg/ha			30	34	38	42	48	31	35	40	45	54	31	41	56	X	X				
Strike point adjustment			-10					-16					-16								
Spreading disc setting			Casting blade A		Hole		3	Casting blade A		Hole		3	Casting blade A		Hole		3				
					Point		1			Point		1			Point		1				
			Casting blade B		Hole		3	Casting blade B		Hole		3	Casting blade B		Hole		3				
					Point		1			Point		1			Point		1				

Min. slide setting	5
Max. slide setting	75
Min. speed	100 rpm
Max. speed	2500 rpm

Spreading table with reference values, cylindrical slug pellets																	Last updated 8 May 2019			
Working width [m]		3.0 m						4.0 m						5.0 m						
Speed [rpm]		460 rpm						480 rpm						500 rpm						
Speed [km/h]		6	8	10	12	15	6	8	10	12	15	6	8	10	12	15				
3.0 kg/ha		16	16	17	17	18	17	17	17	18	19	17	18	18	19	20				
5.0 kg/ha		17	17	18	18	19	17	18	19	20	21	18	19	20	21	22				
7.0 kg/ha		17	18	19	20	21	18	19	20	21	23	19	21	22	23	25				
Strike point adjustment		6						3						3						
Spreading disc setting		Casting blade A		Hole		3	Casting blade A		Hole		3	Casting blade A		Hole		3				
				Point		1			Point		1									
		Casting blade B		Hole	3	Casting blade B		Hole	3	Casting blade B		Hole	3							
				Point	1			Point		1			Point		1					
Working width [m]		9.0 m						12.0 m						15.0 m						
Speed [rpm]		610 rpm						750 rpm						910 rpm						
Speed [km/h]		6	8	10	12	15	6	8	10	12	15	6	8	10	12	15				
3.0 kg/ha		19	20	21	22	23	21	22	23	24	25	25	22	23	24	26				
5.0 kg/ha		21	22	24	25	28	23	25	26	28	31	31	24	26	28	30				
7.0 kg/ha		23	25	27	29	32	25	27	30	32	36	36	27	29	32	35				
Strike point adjustment		0						0						-3						
Spreading disc setting		Casting blade A		Hole		3	Casting blade A		Hole		3	Casting blade A		Hole		3				
				Point		1			Point		1									
		Casting blade B		Hole	3	Casting blade B		Hole	3	Casting blade B		Hole	3							
				Point	1			Point		1			Point		1					
Min. slide setting		5																		
Max. slide setting		75																		
Min. speed		100 rpm																		
Max. speed		2500 rpm																		

Spreading table with reference values, cylindrical slug pellets																			Last updated 8 May 2019			
Working width [m]		17.0 m						19.0 m						21.0 m								
Speed [rpm]		1040 rpm						1190 rpm						1350 rpm								
Speed [km/h]		6	8	10	12	15	6	8	10	12	15	6	8	10	12	15						
3.0 kg/ha	23	24	25	26	28	28	23	24	26	27	29	23	25	26	28	30						
	25	27	29	31	35	35	26	28	30	32	36	26	29	31	33	37						
	28	31	34	37	41	41	28	32	35	38	43	29	32	36	39	45						
Strike point adjustment		-6						-8						-8								
Spreading disc setting	Casting blade A	Hole	Point		3	Casting blade A	Hole	Point		3	Casting blade A	Hole	Point		3	Casting blade A	Hole	3				
			Point		1			Point		1			Point		1							
		Casting blade B	Hole	Point		3	Casting blade B	Hole	Point		3	Casting blade B	Hole	Point		3	Casting blade B	Hole	3			
				Point		1			Point		1			Point		1						
Working width [m]		24.0 m						27.0 m						31.0 m								
Speed [rpm]		1630 rpm						1940 rpm						2410 rpm								
Speed [km/h]		6	8	10	12	15	6	8	10	12	15	6	8	10	12	15						
3.0 kg/ha	24	25	27	28	31	31	24	25	27	29	32	25	25	27	28	32						
	27	29	32	35	39	39	27	30	33	36	42	27	30	35	42	55						
	30	34	38	42	48	48	31	35	40	45	54	31	39	50	65	X						
Strike point adjustment		-10						-16						-16								
Spreading disc setting	Casting blade A	Hole	Point		3	Casting blade A	Hole	Point		3	Casting blade A	Hole	Point		3	Casting blade A	Hole	3				
			Point		1			Point		1			Point		1							
		Casting blade B	Hole	Point		3	Casting blade B	Hole	Point		3	Casting blade B	Hole	Point		3	Casting blade B	Hole	3			
				Point		1			Point		1			Point		1						
Min. slide setting		5																				
Max. slide setting		75																				
Min. speed		100 rpm																				
Max. speed		2500 rpm																				