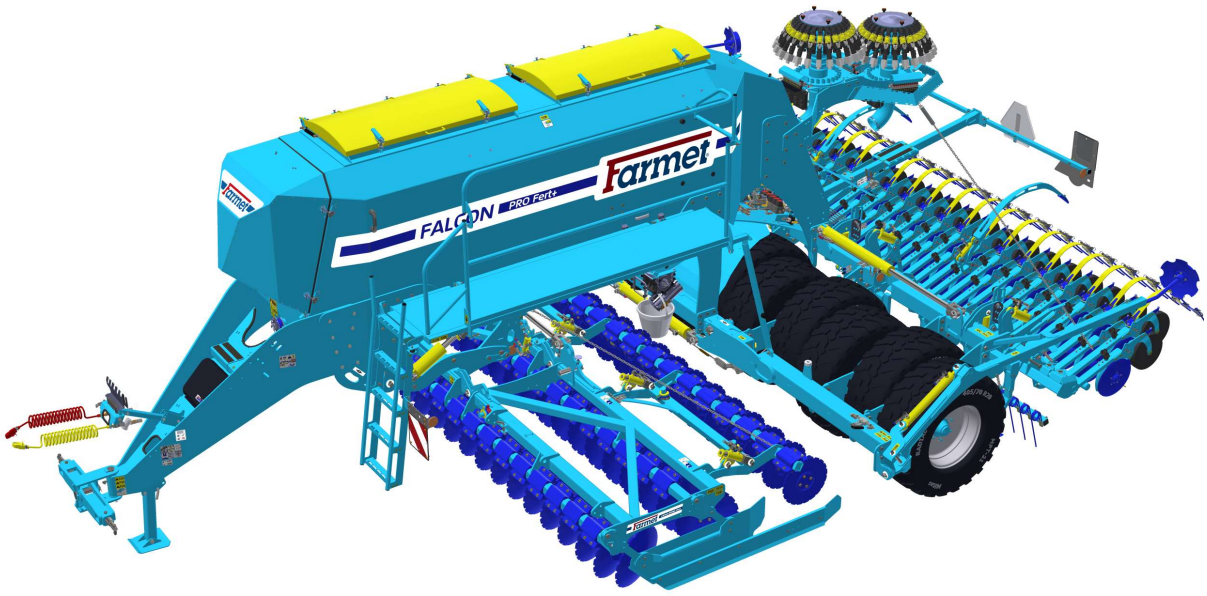
OPERATING MANUAL

FALCON PRO

FALCON PRO FERT +



SN: 2026/0025

VIN: FAR13121ET0000025

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PREFACE

Thank you for purchasing a Farmet machine. Thank you also for your trust, which is inspiring and binding for us.

Farmet a.s. is a dynamically developing Czech company engaged in the development, production, sale and service of agricultural machinery for tillage, fertilizer application and sowing, as well as technologies for the processing of oilseeds, vegetable oils and feed production.

The Farmet brand is focused on products of high quality and high utility value with use in productive agricultural and processing operations. Farmet is a partner of modern agriculture and food industry in many markets around the world.

Our own products and technologies are created in close cooperation between Farmet specialists and end customers, research institutions and universities, which is why our products often have unique technical solutions according to the requirements of agricultural practice.

Significant investments in development and modern production operations are a guarantee of further development in the field of quality and new productive production technologies. Our goal is to further increase the added value of products and strengthen their competitiveness in all markets, increase user comfort, occupational safety and environmental protection.

Ing. Karel Žďárský
CEO and Chairman of the Board of Directors

AGRICULTURAL MACHINES









OIL & FEED TECH






IMPORTANT

READ CAREFULLY BEFORE USE

KEEP FOR FUTURE REFERENCE

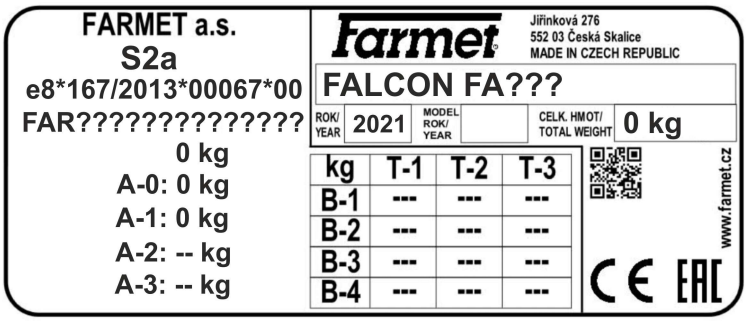
Contents

1 MACHINE CONFIGURATION

Serial number of the machine	2026/0025
VIN	FAR13121ET0000025
Machine code	H6D1|SSC_167/MD3_1/BT_3/SFD_D06/EC/DHS_3//DC HSF 3 /NMT/WT2,25/SS36/D3F-334-4/V2/CO/BM_1/T3L /AB_2 2/TA/BH 3/WL/SLS 2/S 2/GPS
Additional equipment	1V3,5H/1V40/1V100/1V130/1V250/1V500
HW ECU	
SW ECU	

Machine equipment	
☐	Small fan Punker
☐	Small fan Punker + fertilization
☒	Big fan Punker + fertilization
☐	Big fan Farmet + fertilization
☐	Auger metering unit of fertilizing
☒	Roller fertilizing dispenser
☒	Type of seed tube distributions – EC
☐	Type of seed tube distributions – HM
☐	Terminal Basic
☒	Farmet electronics
☐	Terminal Smart 570
☐	Terminal Touch 800
☐	Terminal Touch 1200
☐	Licence Track Leader
☐	Licence Section control
☐	Licence Multi control
☐	Licence Tramline management
☐	Licence ISOBUS-TC

The serial number of the machine is printed on the serial plate and on the machine frame. This machine serial number must always be stated when ordering service or spare parts. The type plate is located on the front of the hopper.



2 QUICK START

Point	Act	Chapter
0	Safety notice	4
1	Engage the Falcon with towing equipment	10.1
2	Connect all hydraulic hoses, including the return drain	10.2
3	Connect the 7-pin cable of the machine's road lights	
4	Connect the machine electronics to the towing of vehicle	10.4
5	Raise the front support leg of the machine and secure	
6	Unlock the front section tilt pins	
7	Open the tilt valve. (blue marker)	14.7
8	Open the front preparation section lift valve.(yellow marker)	29
9	Switch on the seed drill terminal with main switch ⏻	
10	Unfold the machine using the hydraulic circuit and the control terminal	14.6
11	Check that the seed drill is clean	16
12	Check the squeegee for leaks in the seed drill	16
13	Check the permeability of the fertilizer hoses	
14	Check the permeability of the seed hoses	
15	Sprinkle the seed	14.10
16	Pour the fertilizer	14.10
17	Adjust the machine plane and lock the tractor arms	
18	Adjust the sowing depth	18.1
19	Set the pressure on the pressure reducing valve	18.2
20	Depth adjustment of the front preparation section	29
21	Perform a seed test	17.2
25	Set the priority on the hydraulic circle of the fan	10.2
26	Set the required oil flow for the fertilizer hydraulic motor	10.2
27	Set the fan speed according to the seed and the rate	11.2
28	Set the required hydraulic functions – markers, tramline markers, etc	14.9.2

3 TECHNICAL PARAMETERS

Parameters		FALCON 3	FALCON 4	FALCON 6	FALCON 8
Working width (mm)		3 000	4 000	6000	8 000
Transport width (mm)		3 000			
Transport height (mm)		3 300	3 300	3 300	4 000
Total length of the machine (mm)		7 500			
Working depth (mm)		0–100			
Hopper capacity without fertilization (l)		4 000	4 000	4 000	4 000 / 6 000
Hopper capacity with fertilization (l) (distribution 40:60)		6 000	6 000	6 000	6 000 / 8500
Filling height of the hopper (mm)		2 650	2 650	2 650	2 650 / 3400
Filling hole size without fertilization (mm)		1 140 x 620			
Filling hole size with fertilization (mm)		1 430 x 620			
Number of seeding coulters (spacing 125 / 150 mm)		24 / 20	32 / 26	48 / 40	64 / 52
Numbers of fertilization coulters (spacing 250 / 300 mm)		12 / 10	16 / 13	24 / 20	32 / 26
Seed coulters pressure (kg)		50–120			
Fertilization coulters pressure (kg)		to 200			
Disc diameter of the double disc coulter / pressure wheel (mm)		355 / 340			
Number of preparation section disks ø 490	Front row	12	16	25	34
	Back row	11	15	24	33
Number of chisels 3-row section depth 80 mm (spacing 100 mm)		12/10	16 / 13	24 / 20	32 /26
Number of chisels 3-row section depth 200 mm (spacing 250/300 mm)		12/10	16/13	24/20	32/26
Work performance (ha/h)		3 - 4,5	4 - 6	6 - 9	8 - 12
Towing device (kW/HP) *		92 / 125	117 / 160	161 / 220	205 / 280
Working speed (km/h)		10 - 20			
Maximum transport speed (km/h)		30			
Maximum slope accessability (°)		6			
Tire size		405/70 R20 420/65 R20			
Brake type / distribution***		air / double hose			
Required pressure for brake control (kPa) ***		8,5			

Parameter	FALCON 3	FALCON 4	FALCON 6	FALCON 8
Number of hydraulic circuits / pressure (bar) ****	1 - 5 / 200			
Type of quick couplings	ISO 12,5			
Pressureless return flow (max. 5 bar)	ISO 20			
Hydraulic fan oil flow (l/min)	30 - 40			
Oil flow for machine control (l/ min)	50 - 60			
Electrical system requirement	12 V DC / 40 A			
Tractor hitch requirement	TBZ cat. 3			
Weight of machine without fertilization (kg) **	4 830 – 5 840	5 340 – 6 580	6 800 – 8 000	8 440 – 11 950
Weight of machine with fertilization (kg) **	5 630 – 6 140	6 630 – 8 420	8 000 – 9 860	9 600 – 13 000
* The actual tensile force can change significantly. Depending on the selected machine variant, depth of cultivation, soil conditions, slope of the land, wear of working bodies sand their adjustment ** The weight of the machine varies depending on the equipment *** Alternative hydraulic brake/ operating pressure 130±5 bar. **** According to the equipment of the machine				

Transport/Brake system: Observe the national regulations applicable to the transport of machines on public roads. Check the legal regulations in force in the country and the regulations on the maximum permissible gross weights and axle loads, as well ass on the necessary use of the brake system. If you have further questions, please contact our sale representative.

4 GENERAL INSTRUCTIONS FOR USE

1. The machine is manufactured in accordance with the latest state of technology and approved safety regulations. Even that, there is a risk of injury to the user or third parties or damage to the machine or other property damage.

2. Use the machine only in harmless condition, in accordance with its intended use, with knowledge, with knowledge of possible dangers and in compliance with the safety instructions in these operating instructions.The manufacturer is not responsible for damage caused by using the machine in violation of the machine's limit parameters and the instructions for using the machine. The risk is born by user.

Immediately remove defects, that can negatively effect safety risk!

WARNING – This warning sign must be in the immediate danger of a dangerous situation, ending with serious injury or death.

ATTENTION – This warning sign alerts you to a situation that could result in minor or minor injury. It also alerts you to dangerous actions associated with activities that could damage the machine.

NOTICE– This warning sign indicates a technical recommendation.

RECOMMENDATION

PRESS

3. The machine may be operated by a person authorized by the operator under the following conditions:

- Must have a valid driving license of the relevant category
- They must be demonstrably acquainted with the safety regulations for working with the machine
- He must be familiar with the machine instructions and the machine operator.
- They must know the meaning of the safety signs placed on the machine. Respecting them is important for safe and reliable operation of the machine.

4. Maintenance and service repairs on the machine may only be performed by a person:

- Authorized by the operator.
- Demonstrably aguainted with the safety regulations for working with the machine.
- When repairing a machine attached to tractor has to have the right category of driver license.

5. The operator of the machine must be sure of other persons safety when working with the machine or transporting the machine.

6. When transporting the machine or working on the field the machine operator have to control the machine from inside the cabin.

7. The machine operator can only enter the machine structure only at standstill position and when the machine is blocked from movement for the following reasons:

- Adjustments of working parts of the machine,

- Repair and maintenance of the machine,
- Unlock or secure the axle ball valves,
- Securing the axle ball valves before lowering the side frames,
- Adjustment working parts of the machine after folding side frames.

8. When climbing on the machine don't step on tires of the pneumatic roller or other spinning parts. They can spin and you can fall and have serious injuries.

9. However, the changes are, or adjustments on the machine can be done only with written agreement of the manufacturer. The manufacturer is not responsible for any damage resulting from non-compliance with this instruction. The machine must be maintained with the prescribed accessories, equipment and facilities, including safety markings. All warning and safety signs must be legible at all times and in place. In case of damage or loss the marks must be immediately renewed.

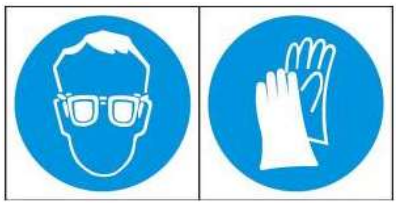
10.When working with machine the operator must have the Manual of using with requirements of safety work available.

11. The operator cannot using the alcohol when working with machine, or pills, or narcotics and hallucinating substances, which they increased lower attention and coordinated abilities. If the operator must consume a pills prescribed by a doctor or consuming free pills for sale must be informed by a doctor that in these circumstances is capable to work responsibly and safely operate the machine.

4.1 Protective equipment

For operation and maintenance:

- Tight-fitting clothes.
- Safety gloves and safety glasses for dust protection and sharp parts of the machine.



5 MACHINE TRANSPORT USING TRANSPORT MEANS

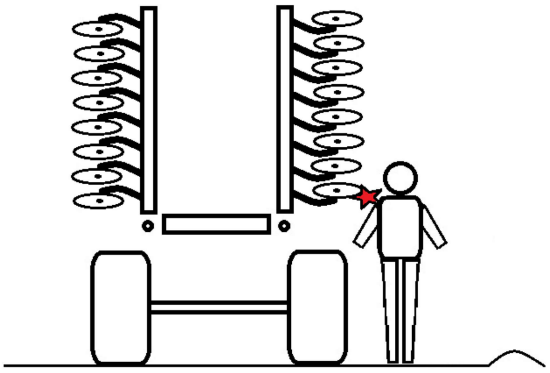
1. The means of transport designed to transport of the machine must have a load of capacity at least equal to the weight of the transported machine. The total weight of the machine is listed on the nameplate.
2. The dimensions of the transported machine including the means of transport must meet with the valid regulations for operation on roads (decrees, laws).
3. The transported machine must always be attached to the vehicle in such a way that it cannot be released spontaneously.
4. The carrier is responsible for damage causes of an incorrectly or insufficiently attached machine to the vehicle.

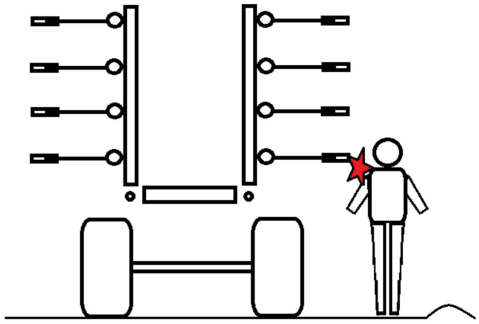
6 MACHINE HANDLING USING LIFTING EQUIPMENT

1. Lifting equipment and binding instruments using for manipulation with the machine must have its own load capacity minimum equal with weight of the machine being handled.
2. Attachment of the machine for manipulation may only be carried out in places designed for this purpose and marked with self-adhesive labels showing the „chain“.
3. After attachment (suspension) in places designated for this purpose, it is forbidden to move in the area of possible reach of the manipulated machine.

7 MACHINE TRANSPORT ON ROADS

- The machine contains sharp structural projections.
- **It is prohibited to operate and transport the machine on roads when visibility is reduced!!** - Persons or objects, or other road traffic participants could get caught
- **The machine operator must be extra cautious when driving on roads and consider the width of the machine and safe distance from persons, vehicles and objects, or other road traffic participants!!**





- The machine attached to the rear arms of tractor (TPH 3).
- The side frames must be folded down to a vertical position and secured.
- The machine must be equipped by removable rails with markable contours, functional lightnings and rear marking plate for slow vehicle (according to EHK NO.69).
- The lightning must be on public roads ready to operate.
- A tractor must be equipped by a special lightning system of orange colour, which must operate on public roads and be put into operation.
- The operator with respect on the measurements of the machine have to be careful and considered on the others drivers on the public roads.
- The operator must be sure to secure rear arms TPH of the tractor and put them in secure position when transporting the machine on public roads. At the same time the arms of the rear TPH tractor must be secured against lateral swing.

- **It is strictly forbidden to transport people or cargo on the machine or to attach other machine, trailer or attachments to the machine.**
- MMaximum transport speed limit on public roads is **30 km/hour**.
- **Prohibition of operation in reduced visibility!**

- **The machine can be operated on roads only if it is equipped with air brakes (the customer will receive a technical certificate). Otherwise, the machine must not be operated on public roads!**

8 WORK SAFETY LABELS

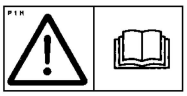
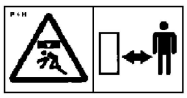
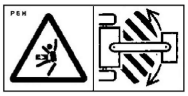
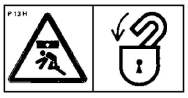
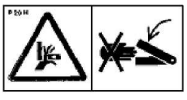
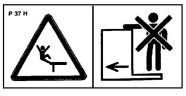
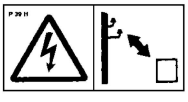
Safety warning labels are used to protect operator.

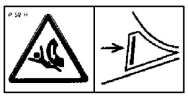
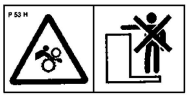
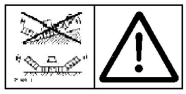
In general:

1. Strictly observe the safety warning labels.
2. All safety instructions also apply to other users.
3. If the **Safety label** on the machine is damaged or destroyed, the **OPERATOR MUST REPLACE THIS LABEL WITH A NEW!**

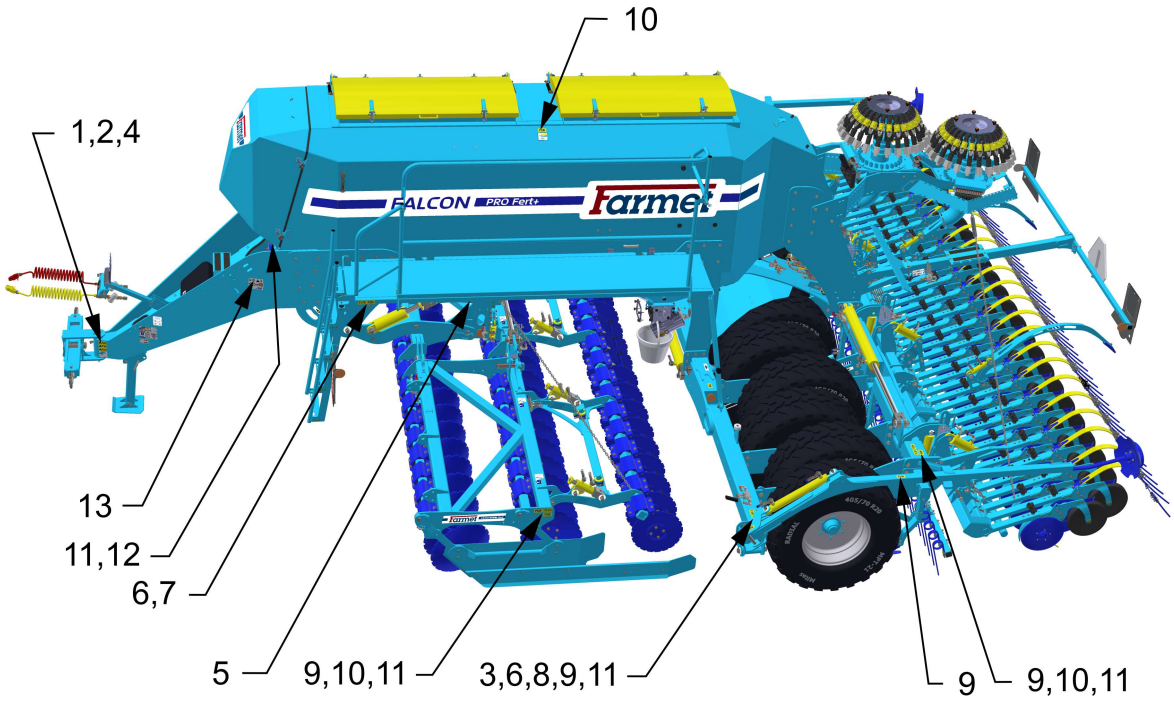
The position, appearance and the exact meaning of the occupational safety labels on the machine are determined in the following tables.

Tab.1 : Self-adhesive safety warning labels are located on the machine

Positions on the machine	Safety label	Meaning of labels	Label stickers
1		Before the manipulation with the machine ready the instructions for using. When operating, follow the instructions and safety regulations for operating the machine.	**P 1 H**
2		When connecting or disconnecting do not enter between the tractor and the machine nor enter this area unless the tractor and machine are stationary and the engine is switched off.	**P 2 H**
3		Stay out from the raised machine reach.	**P 4 H**
4		Stay out of the reach of the tractor – agricultural implement when the tractor engine is running.	**P 6 H**
5		Before beginning of the transporting secure the axle against unexpected drop.	**P 13 H**
6		Stay out of reach when unfolding the service platform.	**P 20 H**
7		Driving and transporting the machine structure is strictly forbidden.	**P 37 H**
8		Keep safe distance from electrical equipment when working or transporting the machine.	**P 39 H**

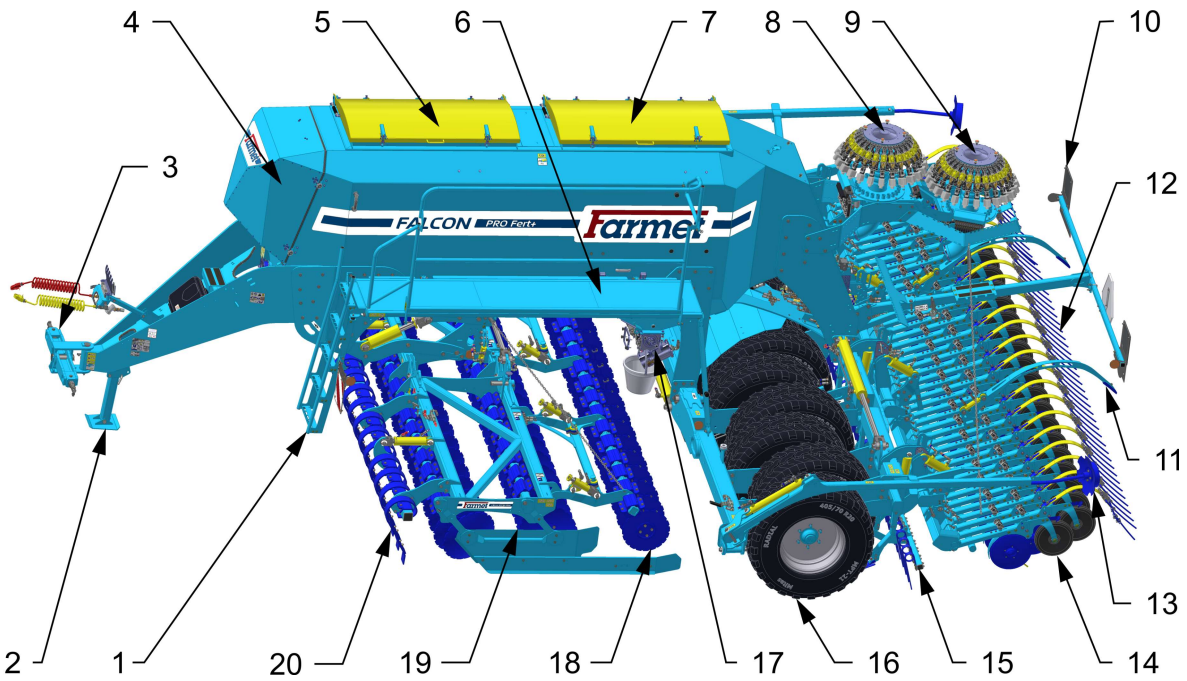
9		When folding and unfolding the side frames and the service platform, stay out of their reach.	**P 50 H**
10		Secure the machine against unexpected movement.	**P 52 H**
11		Do not be close to the rotating parts, unless these are not in calm position that means that they are not rotating.	**P 53 H**
12		It is forbidden to fold and unfold the side frames of the machine on a slope or on sloping surface.	**P 100 H**
13		Shown lever positions and functions of the hydraulic ball valve located on the piston rod	**P 101 H**

- Position of the safety labels on the machine



9 DESCRIPTION

- FALCON PRO is structurally designed as a modular seed machine, with a rich amount of equipment.



1	Access ladder	11	Tramline markers
2	Folding supporting leg	12	Harrow pens behind the seed coulter
3	Drawbar	13	Marker
4	Fan	14	Seeders with pressure wheel
5	Fertilization hopper	15	Harrow pens behind pneumatic pressing wheel
6	Service platform	16	Pneumatic flotation rammer
7	Seed hopper	17	Dispenser with mixer
8	Distributor head number 2 (for dispenser 2)	18	Fertilizing disc section
9	Distributor head number 1 (for dispenser 1)	19	Exchange preparation section
10	Targets with road lighting	20	Flexi board

10 COMMISSIONING

- Before taking over the machine, check and control that it has not been damaged during transport and that all the parts contained in the delivery note have been delivered.
- Before putting the machine into operation read these operating instructions carefully. Before using the machine for the first time be familiar with yourself with controls and overall instructions.
- Aggregation of the machine with the tractor is to be performed on a flat and hardened surface.
- When working on slopes, observe the lowest slope grade of the set **TRACTOR- MACHINE**.
- The operator is obliged to retract the working bodies of the machine from the ground when turning at the headland.
- The operator is obliged to observe the prescribed working depths and speeds stated in the manual in chapter **20, 22.3, 28** when working with the machine.
- The operator is obliged to lower the machine to the ground and secure the set against movement before leaving the tractor cabin.
- The machine showing signs of damage must not be put into operation.
- The operator is responsible for safety and for all damages caused by operation of the tractor and the connected machine.
- The machine may only be connected to a tractor whose curb weight is equal to or higher than the total weight of the connected machine.

10.1 Agregation to a tractor

Tractor engine power requirement for the machine FALCON 3		90 kW*
Tractor engine power requirement for the machine FALCON 4		117 kW*
Tractor engine power requirement for the machine FALCON 6		161 kW*
Tractor engine power requirement for the machine FALCON 8		205 kW*
Requirement for TPH tractor	Spacing of lower suspension joints (measured on joint axels)	1010±1,5 mm, (can also be set 910±1,5 mm)
	ø holes for lower suspension joints for machine suspension pins	ø 37,5, mm
Tractor hydraulic system requirement	Electrical distributor circuit	Circuit pressure min.190 bar – max.230 bar 60 l/min., 2 pcs of quick coupling sockets ISO 12,5
	Hydraulic drive circuit	Pressure in the filling branch min.130 bar–max.230 bar, 1 pc of quick coupler socket ISO 12,5
		Pressure in the non-pressure return max.5 bar, 1pc of quick coupler socket ISO 20
	Seed pressure	Circuit pressure min.190 bar – max.230
	Lifting and lowering circuit of the preparation section	Circuit pressure min.190 bar – max.230 40 l/min., 2pcs of quick coupling sockets ISO 12,5
Tractor air system requirement (if the machine is equipped with brakes)	Machine axle braking circuit	Circuit pressure min.6 bar – max. 15 bar
Tractor electrical system requirement	Connection of the electronic system of the machine	12 V / 40 A
		+ red / – black

No persons may be present in the are between tractor and the machine during connecting.

10.2 Machine hydraulics connection

- Only connect the hydraulic hoses of the machine when the hydraulic circuits of the machine and the tractor (unit) are depressurized.
- The hydraulic system is under high pressure.
- Regularly check all lines, hoses and fittings for leaks and obvious damage. Eliminate any defects immediately.
- When searching for and removing leaks, use only suitable aids, protective goggles and gloves are the basis.
- Use the plugs (on the machine) and sockets (on the tractor) of quick couplings of the same type to connect the machine hydraulic system to the tractor. Connect the quick couplings of the machine to the hydraulic circuits of the tractor according to the table below.

No. of circuit of tractor	Function	Coupler	Circuit color	Operation	Setting of oil flow l/min.	Continual flow
	Non-pressure return from hydromotors and lifting	ISO 20		Free flow to tank		
1	Electrohy-draulic control block	ISO 12,5		Lifting	MAX	
		ISO 12,5		Lowering	MAX	
2	Preparation section	ISO 12,5		Lifting	20 – 40	
		ISO 12,5		Lowering	20 – 40	
3	Flexi board (optional equipment)	ISO 12,5		Lifting	15 – 20	
		ISO 12,5		Lowering	15 – 20	
4	Fan	ISO 12,5		Pressure	20 – 40	PRIORITY 
5	Fertilizing (optional equipment)	ISO 12,5		Pressure	15 – 20	
6	Microdrill (optional equipment)	ISO 12,5		Pressure	15 – 20	

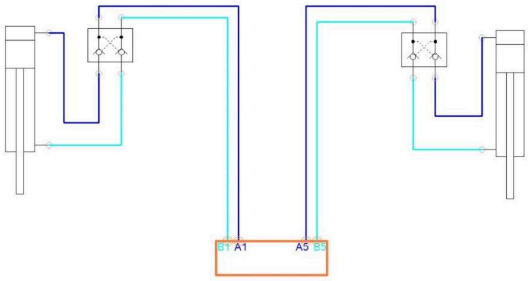
To prevent involuntary or any stranger mistaken hydraulics movement, the control cabinets on the tractor must be secured or locked when not in use or in the transport position.

It is forbidden to disassemble parts of the machine hydraulic system that are under pressure. Hydraulic oil that penetrates the skin under high pressure causes of injury, seek medical advice immediately.

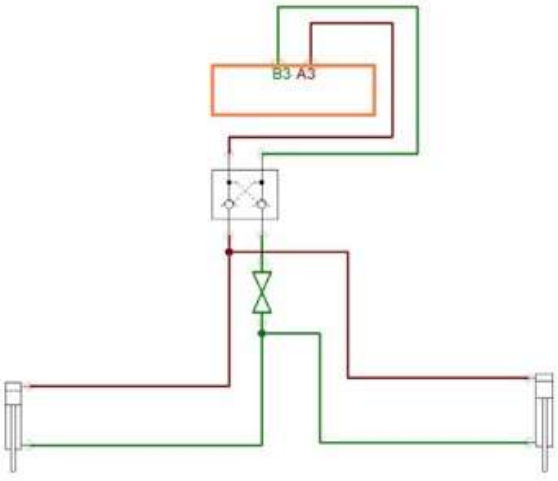
It is necessary to set 100% hydraulic oil flow for the hydraulic circuit (blue circuit).

10.3 Hydraulic diagram of the machine

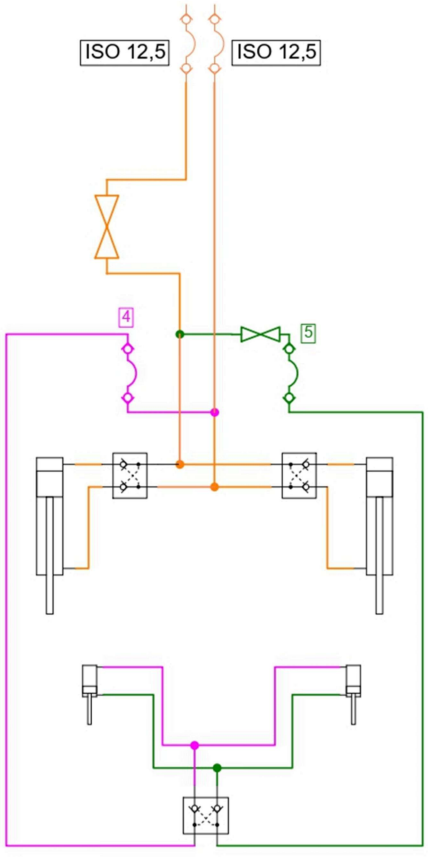
Markers



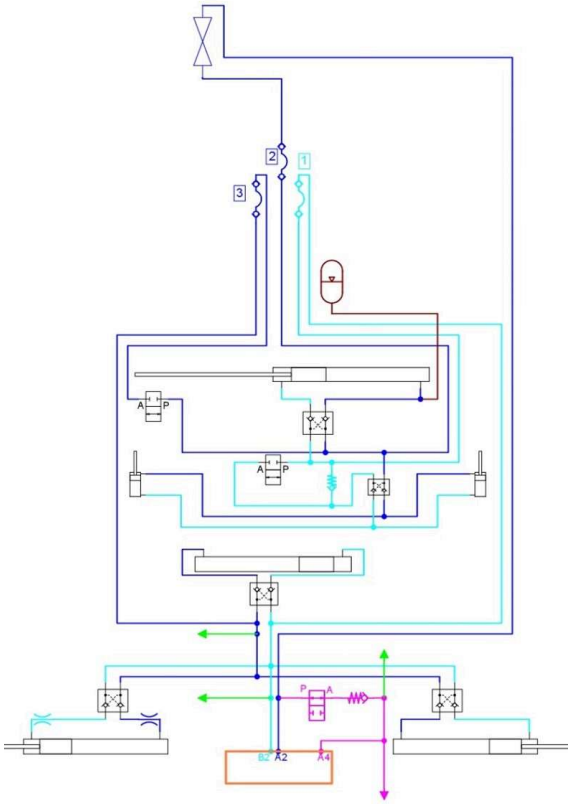
Tramline markers



Preparation section + Fertilization



Folding / Tipping machine



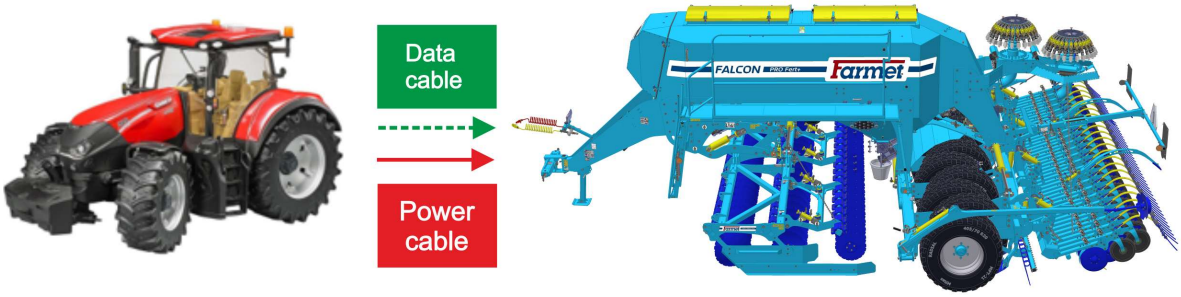
10.4 Connection of the electronic part of the machine

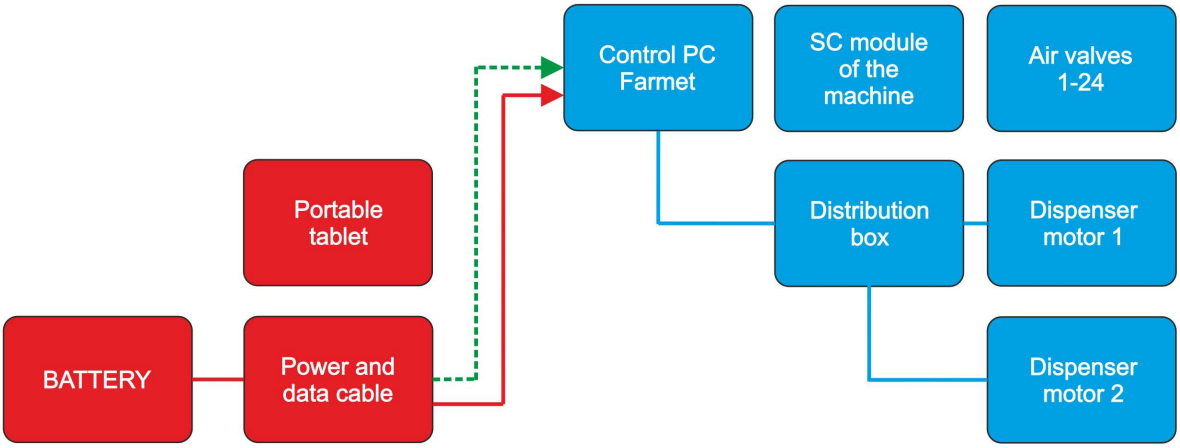
10.4.1 Connection to tractor battery + Electronics Farmet

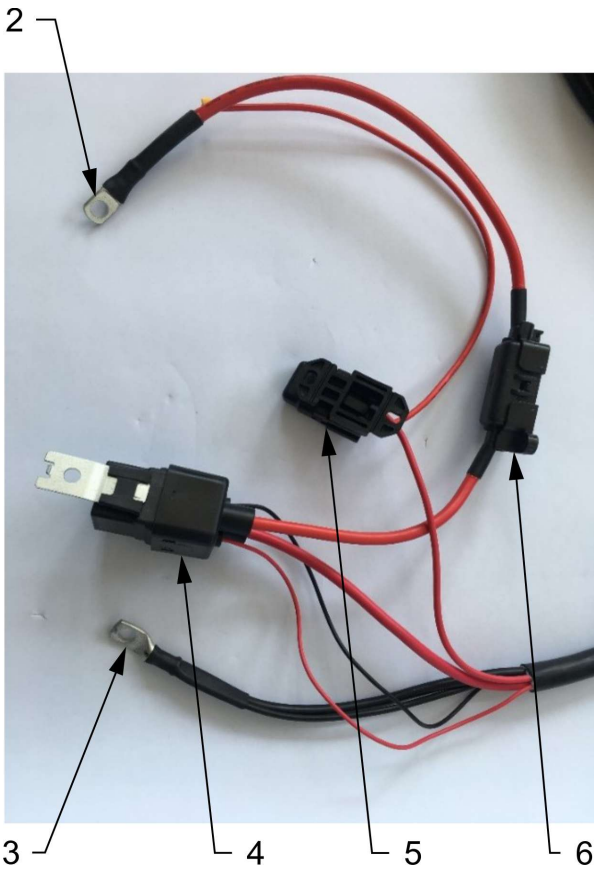
- The electronic unit of the machine only connect when the tractor is at standstill, secured against movement and against the intervention of strangers.
- Use the power cord supplied with the machine to connect the electronic unit. The connecting cable must be connected directly to the tractor battery!
- Place the tablet in the tractor in a place where it will not obstruct the driver's view and at the same time be in the operator's field of vision.
- Secure the wiring securely to prevent mechanical or thermal damage.
- The connection cable set includes a voltage relay that is switched by a cable, ideally attached to the tractor's ignition or a 12V switched power source. This relay switches the communication of the machine's control unit.

- If welding is required on the machine or tractor disconnect the unit from the power supply and disconnect the connecting cables.

- Never replace the fuse with another object and always replace it with a fuse with the same fuse when replacing it.







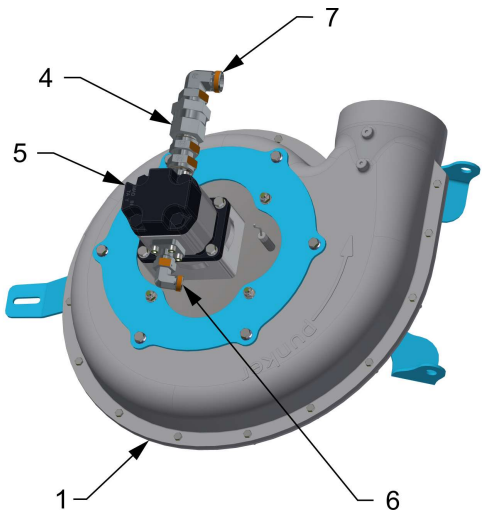
1	Terminal	6	Fuse 50 A
2	Positive battery pole „+“	7	ISO socket
3	Negative battery pole „-“	8	Fuse 1 A
4	Voltage relay	9	Ignition contact for relay switching
5	Fuse 15 A	10	Terminal connection cable

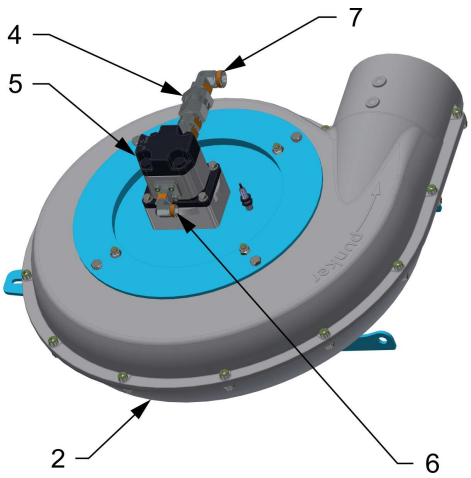
Due the disconnection of the unit from the battery, it is necessary to connect the ignition contact for closing the relay (9) **to the ignition of the tractor, or to the switched 12 V (voltage 12 V switched by the key or switch).**

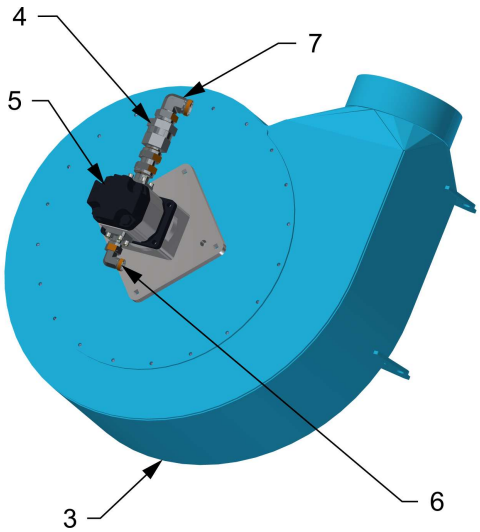
11 MACHINE FAN

- The hydraulic drive of the fan is driven directly from the tractor switchboard.
- It is necessary that the fan drive is connected to the tractor's priority circuit to ensure that the fan speed does not drop in any sense.
- The fan speed is set directly in the tractor by regulating the oil flow of the circuit.

- Replacing of the quick coupling for the non-pressure return with less than ISO 20 is unacceptable.







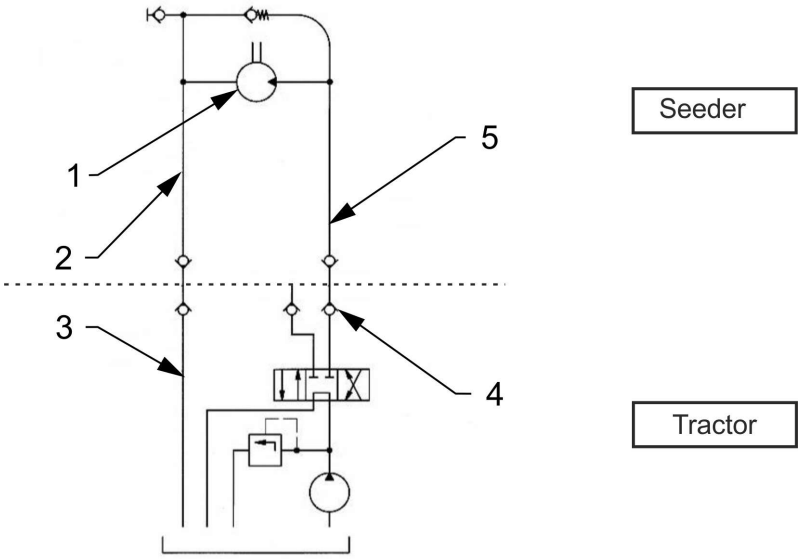
* See chapter **1**for your machine configuration.

1	Small fan Punker	5	Hydraulic motor
2	Big fan Punker	6	Pressure hose ISO 12,5 (P)
3	Big fan Farmet	7	Non-pressure return ISO 20 (T)
4	Reverse throttle valve		

Hydraulic fan motor	Hydraulic engine capacity per revolution		8 cm³/rev.
	Big fan Punker	Maximum speed	3000 (rev. /min.)
		Minimum speed	1800 (rev. /min.)
	Small fan Punker	Maximum speed	4500 (rev. /min.)
		Minimum speed	2500 (rev. /min.)
	Big fan Farmet	Maximum speed	4000 (rev. /min.)
		Minimum speed	2500 (rev. /min.)
Pressure branch (P)	Minimum pressure in the pressure hose		130 (bar)
	Maximum pressure flow in the pressure hose		50 (l/min.)
Non-pressure return **(T)**	Maximum pressure in the non-pressure return		5 (bar)

In case, if free waste is not fitted to the tank as standard on the tractor, contact the tractor manufacturer (dealer), who will provide you with information on the options for the free waste terminal.

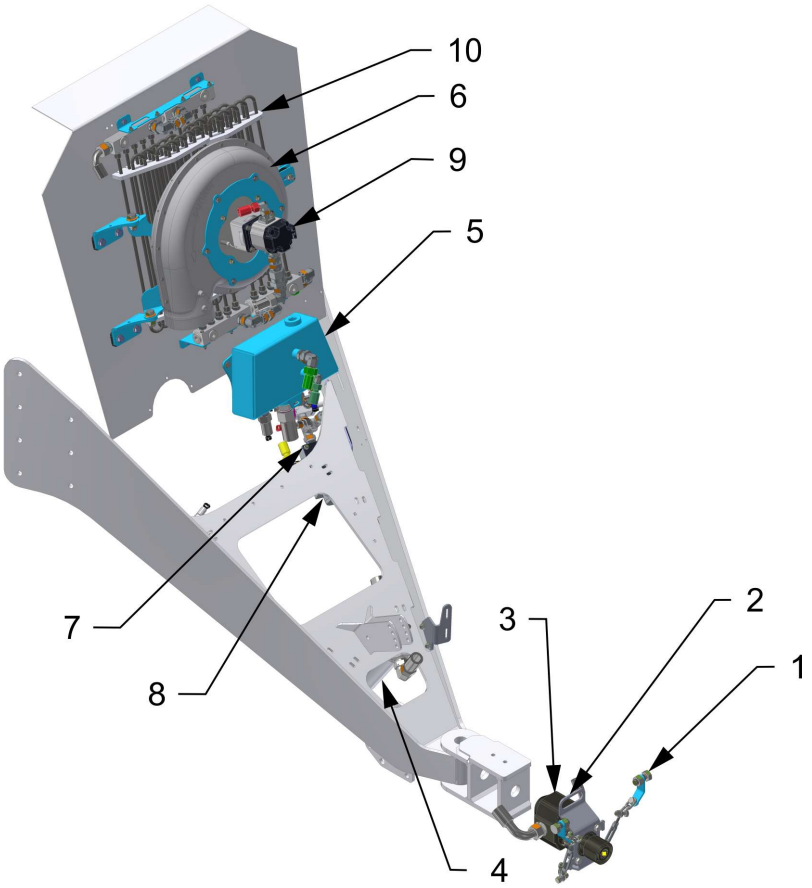
- Hydraulic connection of the fan drive

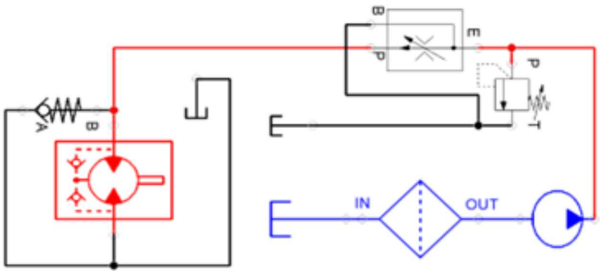


1	Fan hydraulic motor	4	Quick coupler of tractor switchboard
2	Non-pressure return ISO 20 (T)	5	Pressure hose 12,5 (P)
3	Non-pressure return in the tractor tank		

Farmet a.s. is not liable for damage to the hydraulic drive or tractor caused by incorrect connection of the hydraulic drive.

11.1 Fan with separate drive on PTO





1	Generator locking screw	6	Ventilator
2	Handling handle	7	Safety valve
3	Hydraulic generator	8	Fan speed reducing valve
4	Low pressure oil filter	9	Hydraulic fan motor
5	Oil tank	10	Oil cooler

- Securing the hydraulic generator against rotation with chains.
- Always use the PTO fan set to 540 rpm.

Methods to set the fan speed:

1. Connect the hydraulic generator (3) to the tractor PTO.
2. Set the working speed on the tractor (540 rpm).
3. Use the reducing valve (8) to set the required fan speed.
4. Check the speed on the machine monitor.

- If the machine is equipped with an oil cooler, it is necessary to clean it, see **Maintenance plan**
- The oil cooler is located under the dump fan at the front of the hopper.

11.2 Fan speed setting according to seed

If the machine is equipped with a fertilization chamber and no fertilization is required, the air supply for the fertilization branch can be closed using the valve behind the fan as described in Chapter **11.3**

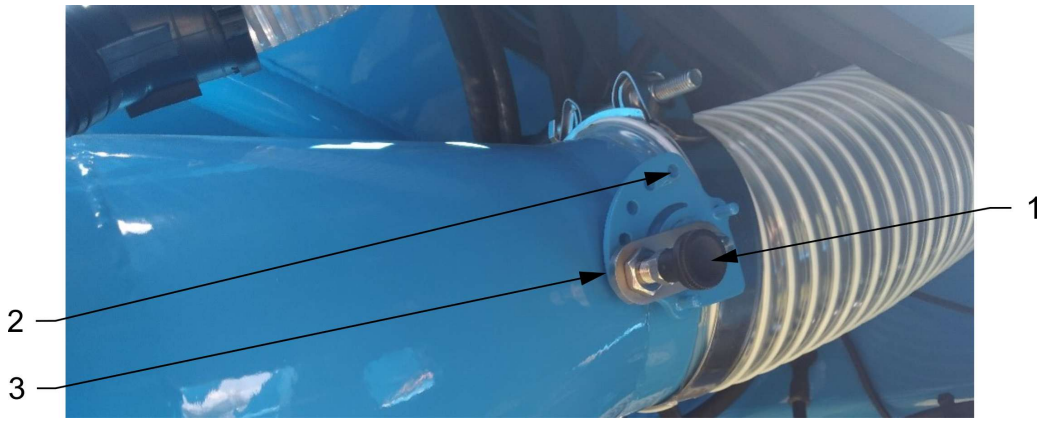
The air flow should not be too strong as it may blow out the seeds or the fertilizer from the seeding row. When the air flow is too weak, there is a risk of insufficient stream of seeds through the hoses which may cause clogging, so pay attention to the proper setting of the fan speed according to the table below.

Fan speed setting table

Big fan Farmet			
Seed rate	1 – 20 kg	20 – 100 kg	100 – 350 kg
1 – 20 kg fertiliser	2500 – 3000	2500 – 3500	3000 – 4000
20 – 100 kg fertiliser	2500 – 3500	3000 – 3500	3000 – 4000
100 – 350 kg fertiliser	3000 – 4000	3000 – 4000	3000 – 4000
Big fan Punker			
Seed rate	1 – 20 kg	20 – 100 kg	100 – 350 kg
1 – 20 kg fertiliser	1800 – 2200	2000 – 2600	2500 – 3000
20 – 100 kg fertiliser	2000 – 2600	2500 – 3000	2500 – 3000
100 – 350 kg fertiliser	2500 – 3000	2500 – 3000	2500 – 3000
Small fan Punker			
Seed rate	1 – 20 kg	20 – 100 kg	100 – 350 kg
1 – 20 kg fertiliser	2500 – 3000	3000 – 3500	4000 – 4500
20 – 100 kg fertiliser	3000 – 3500	3500 – 4500	4000 – 4500
100 – 350 kg fertiliser	3000 – 4500	4000 – 5000	4000 – 4500

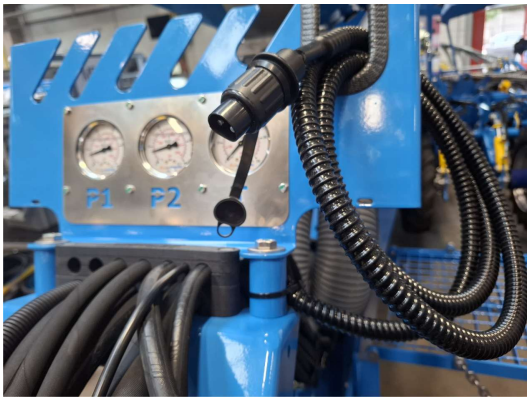
11.3 Fertilizing air control valve

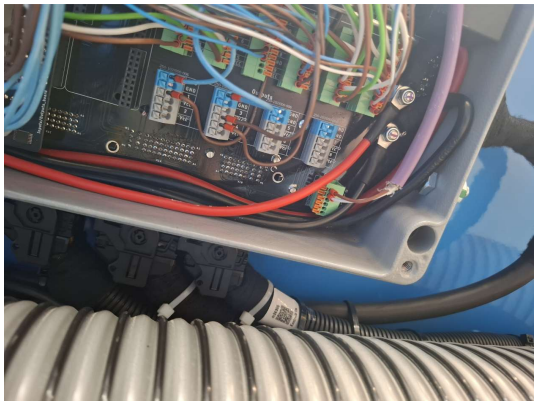
- The position of lever 1 can be used to set the amount of air that flows into each branch.
- Position 2 means that the air flow to the branch is fully closed.
- Position 3 means that the air flow to the branch is fully open.

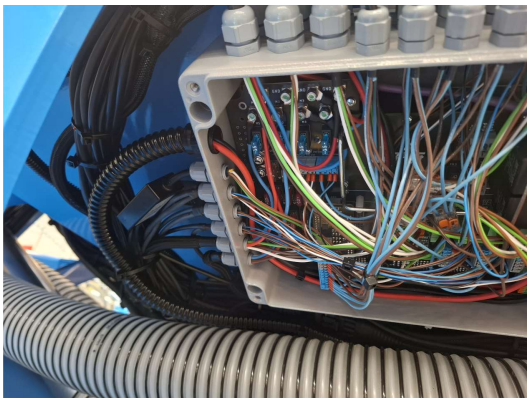


1	Valve locking pin	3	Maximum valve opening
2	Closed valve		

12 EXTERNAL POWER SUPPLY







- Some versions of seed drills are equipped with a cable featuring a three-pin socket.
- The socket is located at the front part of the machine on the drawbar.

- The socket must be connected along with the ISOBUS cable, especially when more than three products are used.

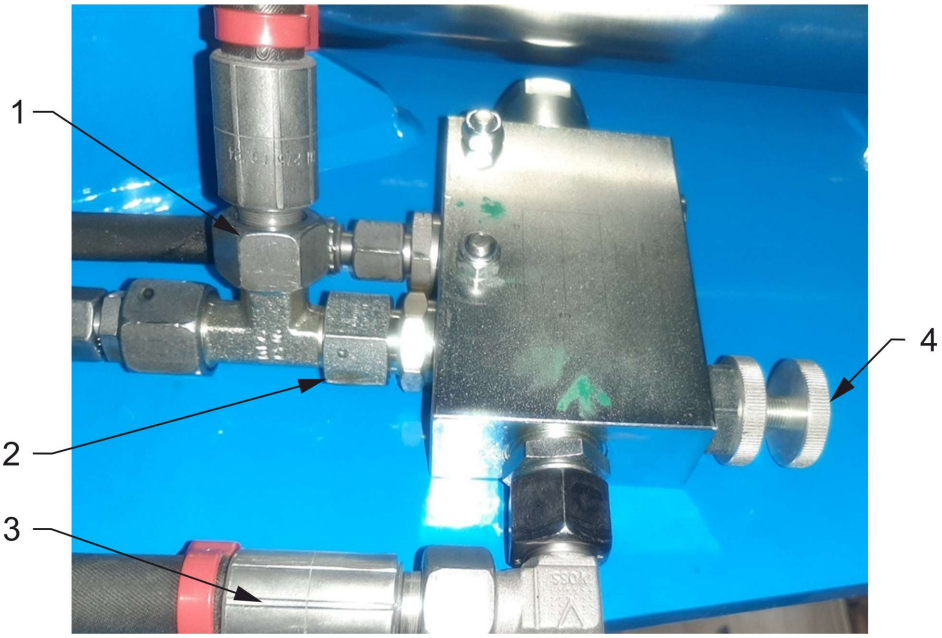
13 ALTERNATOR

- Some versions of the seed drills are equipped with an alternator for powering electric motors and valves.
- The alternator is located in the front of the machine under the hopper and is connected to the fan's hydraulic circuit.

Do not approach the alternator's cooling openings, as there is a risk of injury from rotating parts.

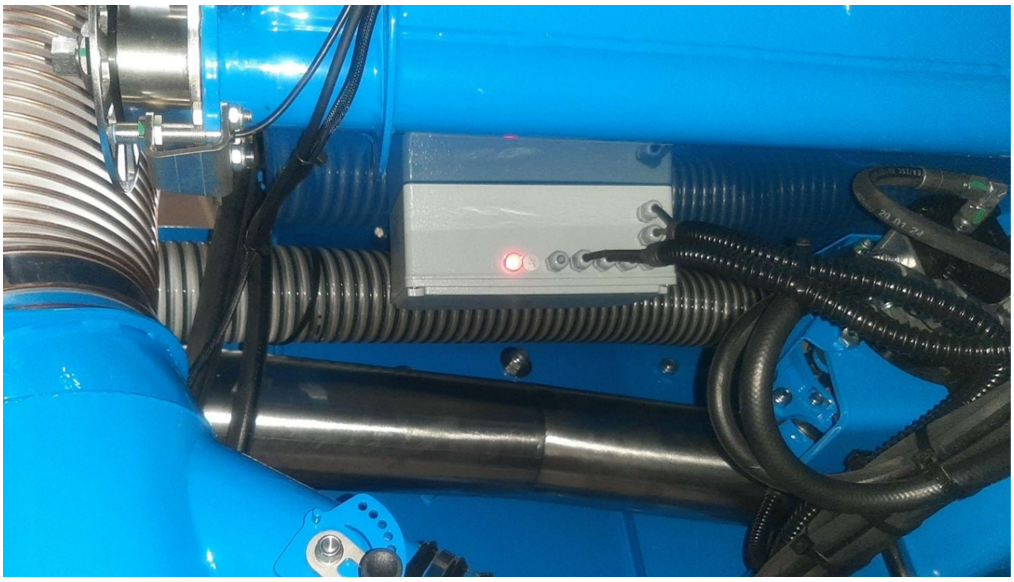
- The control valve for setting the fan speed is located at the front of the machine on the drawbar.
- This valve is factory-set to an alternator speed of 2,800 RPM, and changing the fan speed does not affect the alternator speed.

The alternator speed may only be adjusted by a trained service technician.



1	Output for alternator	3	Oil supply for fan and alternator
2	Output for fan and rear section pressure regulation	4	Manufacturer's alternator speed setting

- The alternator distribution box is attached to the hopper near the alternator. It has a red indicator light that illuminates when the alternator is inactive or faulty. This distribution box also contains a 30 A fuse that powers the electric motors.

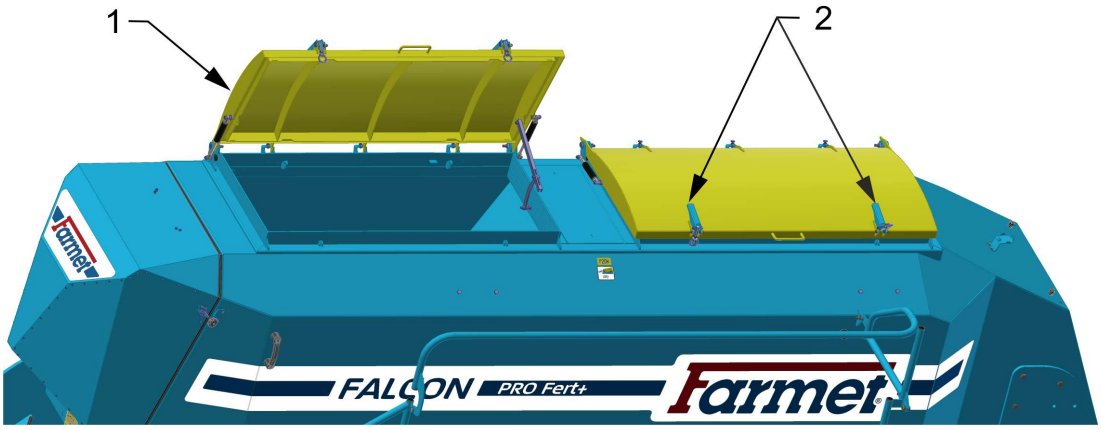


The alternator distribution box contains load resistors, and its surface may heat up slightly.

- Motor calibration is performed without the alternator active (with the fan off). For this purpose, the power is connected through an auxiliary circuit in the main distribution box, protected by a 15 A fuse, and is intended for calibration only. Seeding itself always takes place with the fan on, i.e., with the alternator active.

14 PRESSURE SYSTEM OF THE MACHINE

It is necessary to check the leakage of compressed air, especially around the tank lid.



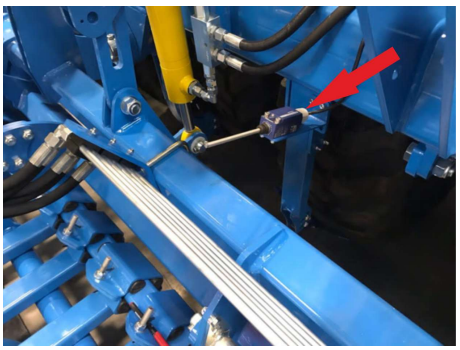
1	Hopper lid	2	Lever to secure the hopper lid

15 SEED SWITCHING SENSORS

- Sowing switching is switched off and off by two sensors.
- The system is designed so that sowing is switched at the beginning of the countersinking. Before the seed passes through the entire pneumatic distribution system, the machine is recessed and it is minimalized the sowing start delay at the start of the journey.
- On the contrary, sowing is switched off at the very beginning of excavation.

15.1 Sowing switching

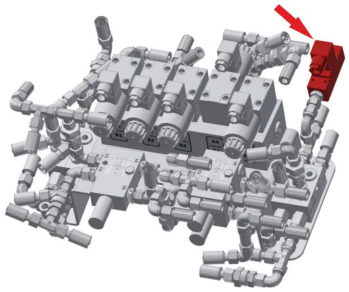
- Switching is secured by an antenna sensor. The antenna sensor is set to close right at the beginning of the countersinking.
- If the sensor is in a horizontal position (as in the picture), it means that the machine is in the working position.
- The moment at which the sowing is switched on depends on the position of the sensor set between the seed frame and the main machine frame.

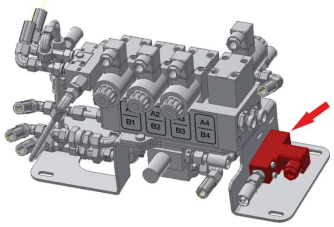


- If the seed section frame is in the upper position, the sensor must be in the closed position.

15.2 Sowing off

- The sowing is switched off by a pressure sensor, which is located on the hydraulic circuit for raising the seed section.
- The sensitivity of this sensor is set to a pressure of 100 Bar.
- When excavating the machine, oil pressure is supplied to the hydraulic distributor, when the set value is reached, the switch is closed and the motors of the seed and fertilizer metering units are deactivated.
- For this reason, move the hydraulic control lever to the float position after deepening the machine into the working position!
- The sensitivity of the pressure and antenna sensor is set by the manufacturer as standard. Settings may only be changed by a specialist.





16 MACHINE CONTROL WITH THE FARMET CONNECT ELECTRONIC SYSTEM

- The electronic system controls all functions connected to the blue hydraulic circuit.

- The control panel is a mobile tablet, supplied in a durable case as standard, and it easily fits into a charging station mounted in the tractor cab. A charging adapter is included.

16.1 Connecting the Tablet to the Machine

- Connect the Falcon seed drill to the tractor and connect the ISOBUS cable to the tractor socket.
- The ISOBUS electronics are fully compatible with the ISOBUS protocol.

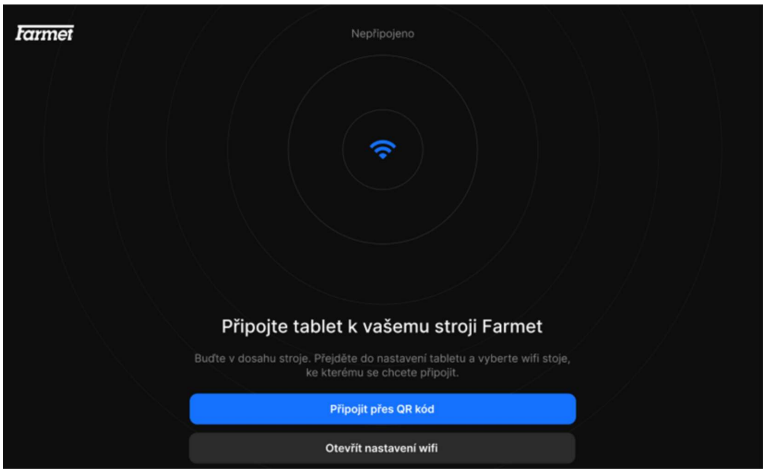
- Wait 30 seconds for the control unit to turn on and log in.
- Then, connect to the seed drill's Wi-Fi network, e.g., FA6COM-2025/1234, This network is password-protected, and you will be prompted to enter the password on your first login: FalconProOperator1

- The second option for Wi-Fi connection is to scan the QR code located on the machine's drawbar.

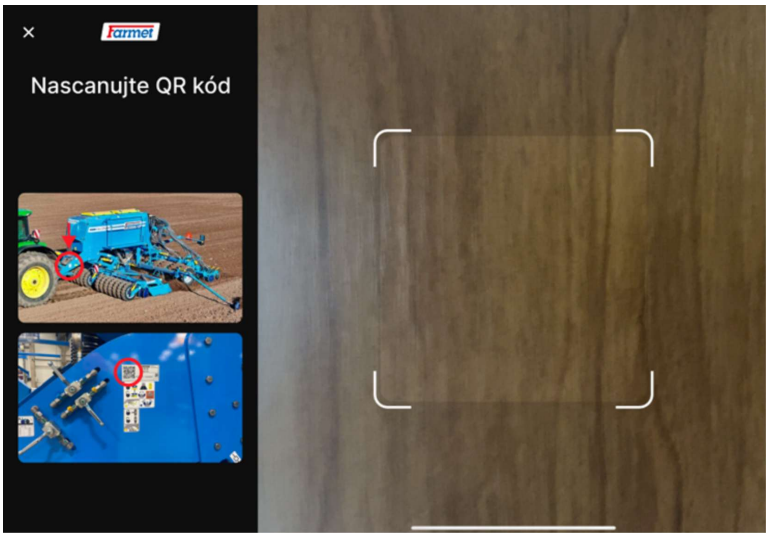
- After the initial connection, the Wi-Fi network will connect automatically (provided there are no other available networks nearby).

- Now, launch the FARMET CONNECT application, which is pre-installed on the tablet or can be downloaded from the App Store.

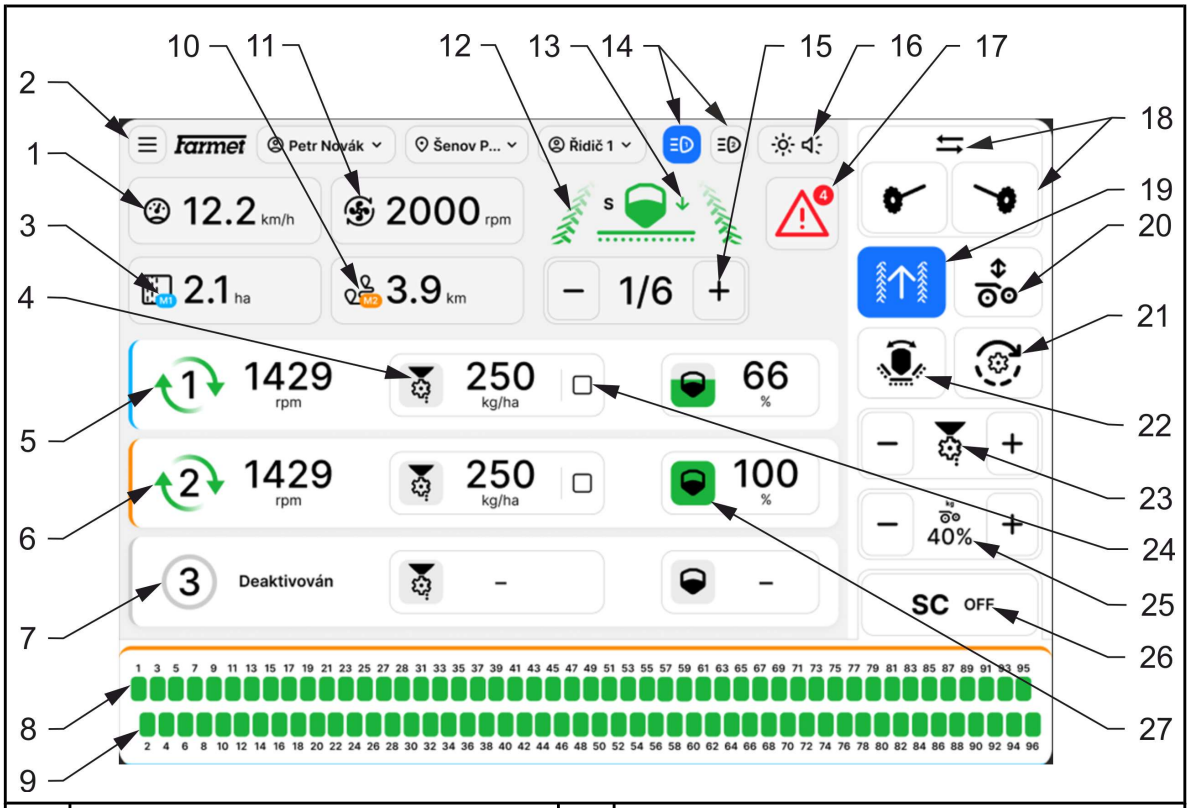
- If you launch the application before the seed drill's Wi-Fi network is connected to the tablet, a connection prompt screen will appear



- QR code scan screen



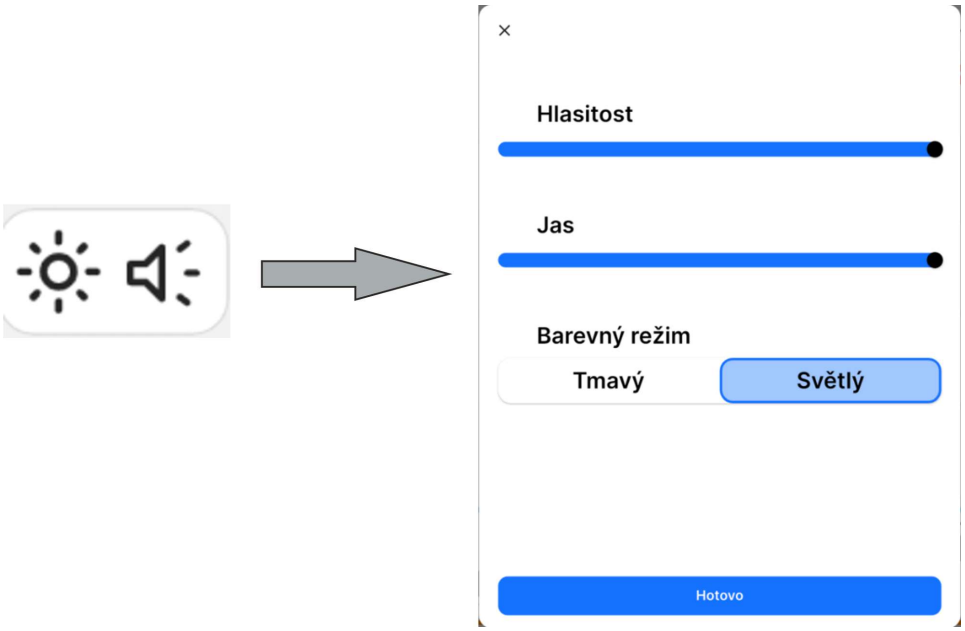
16.2 Work screen

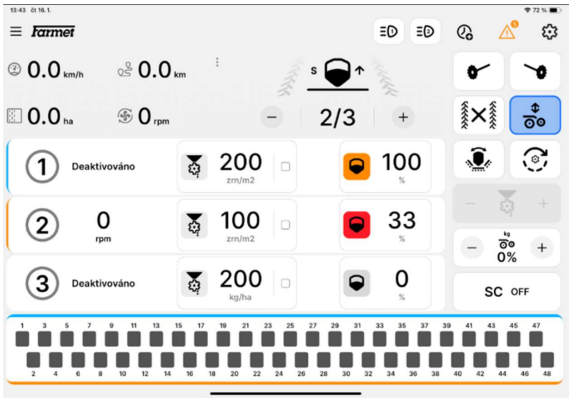


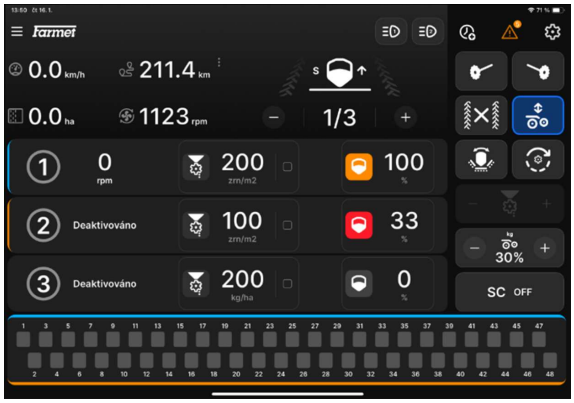
1	Working speed	16	Settings menu
2	Main menu options	17	Calling up alarm message list
3	Calculating seeded area	18	Left/right marker, function setting
4	Calibration menu	19	Activation of rail lines
5	Motor 1 (dispenser)	20	Turning off the seeding section movement
6	Motor 2 (dispenser)	21	Spot seeding function
7	Motor 3 (dispenser)	22	Machine folding/unfolding activation
8	Motor 2 – seed flow sensor	23	Manually changing the seeding amount during operation
9	Motor 1 – seed flow sensor	24	Selecting dispenser for changing the seeding amount
10	Fan speed	25	Rear section down pressure control (according to the machine equipment)
11	Distance travelled	26	Section Control function activation (according to the machine equipment)
12	Displaying the active rail ride	27	Setting the amount in the hopper
13	Displaying the working position		
14	Activation of work lights and lights in the hopper		
15	Counter for rail line travels		

16.3 Setting the display and volume

- The work screen allows you to set a dark mode for working in low light conditions.



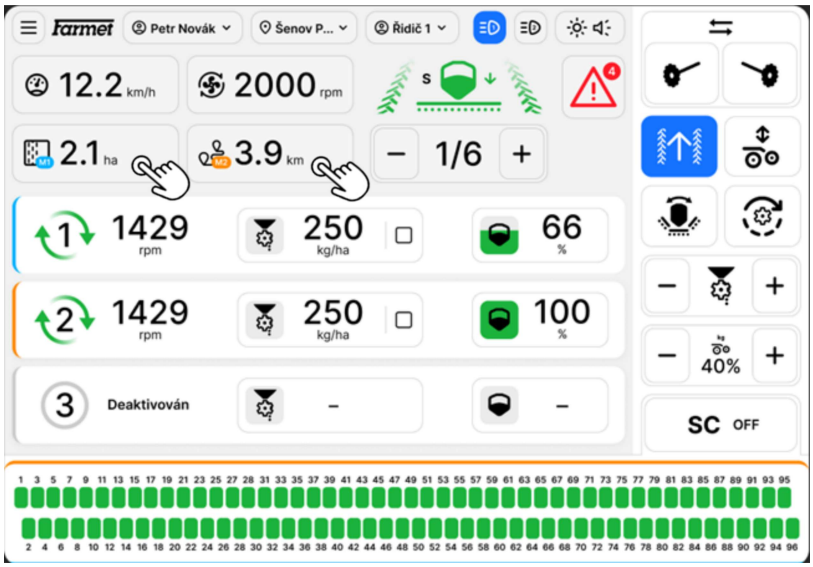




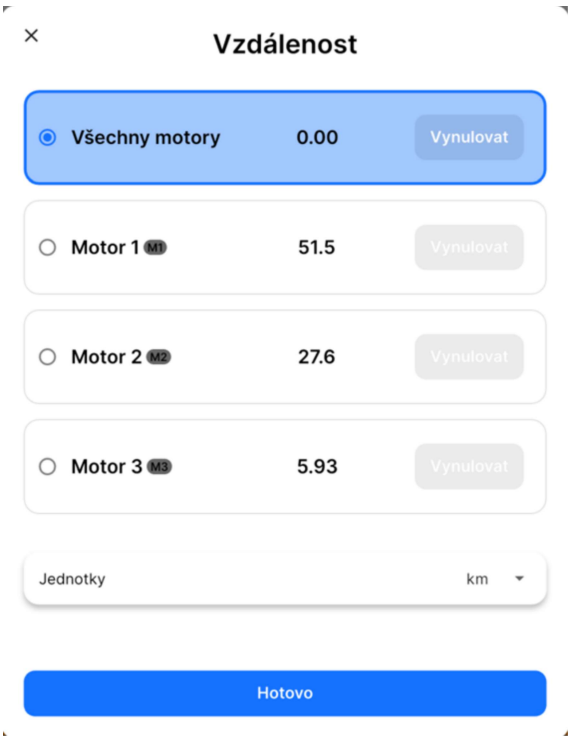
Reducing the volume may result in alarm notifications not being heard sufficiently.

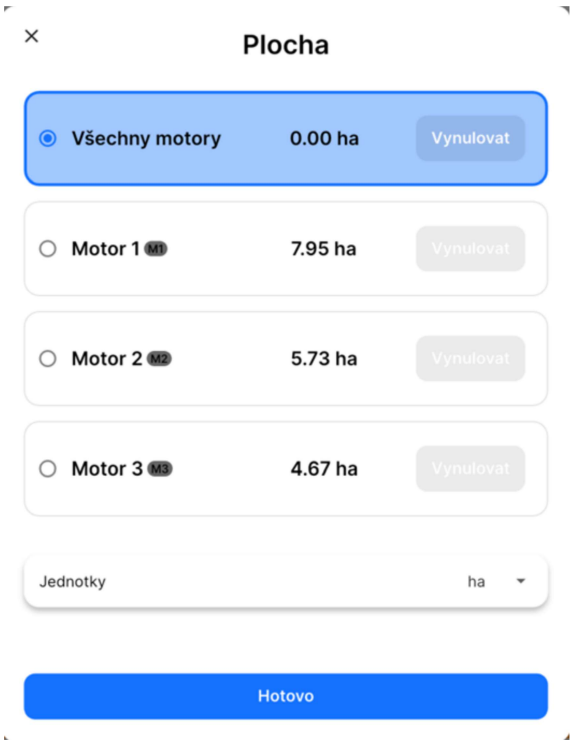
16.4 Seeded area information

- On the home screen, you will find data on the seeded area and distance travelled.



- The counter is for both the total seeded area "All motors" and for each motor separately.
- Pressing the area or distance button will display this data or reset the counters.





16.5 Unfolding and folding the machine

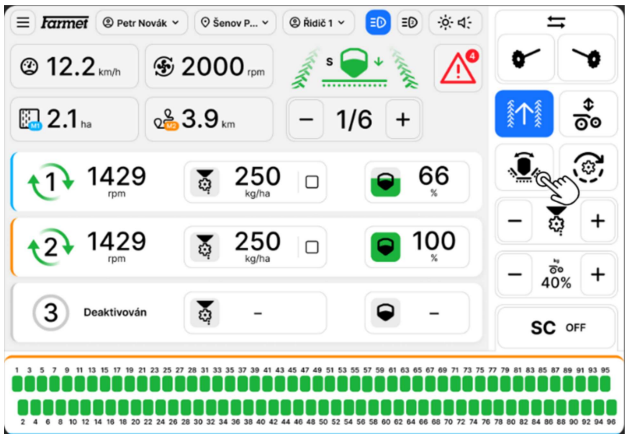
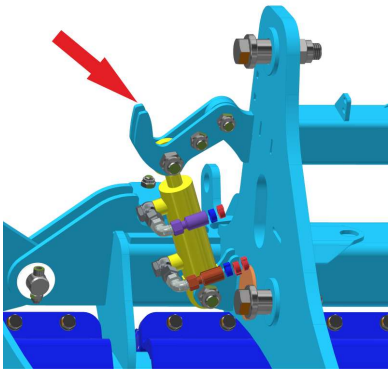
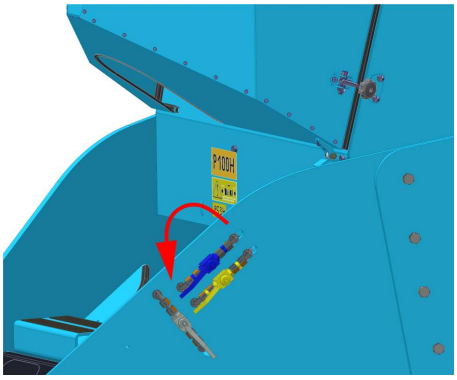
- The blue hydraulic circuit of the machine must be connected to the double-acting hydraulic circuit of the tractor.

- The operator must ensure that when folding or unfolding the side frames, no person or animal is within their reach (means at the point of impact) or in the near area and that no one pushes their fingers or other parts of the body into the joint space.

- Folding or unfolding the machine at rest, on level and standstill surfaces.

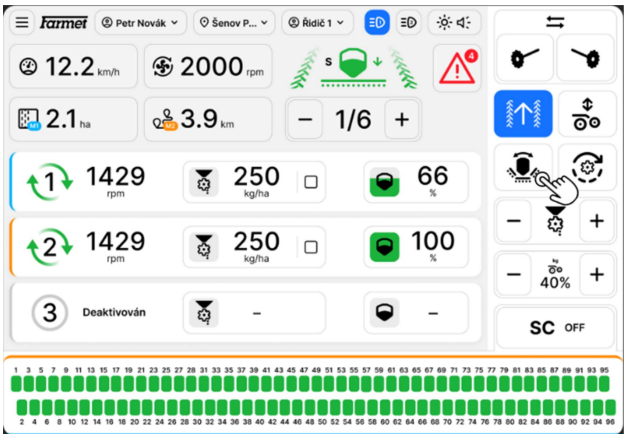
- Remove adhering dirt on the folding frames, especially around the joints, end valves, stops and secured sections. The dirt can prevent folding, unfolding or mechanical damage.
- While folding and unfolding, check the side frames and let them smoothly to the end of position.

16.6 Unfolding the machine

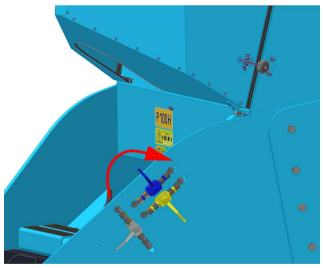
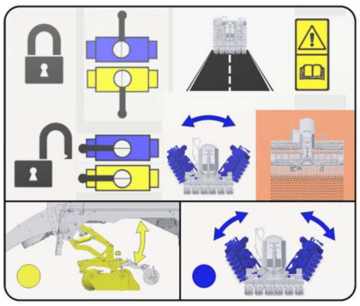
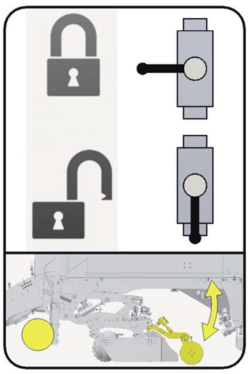
	
1.	Before unfolding the machine it is necessary to unlock the side frames on the front preparation section. This locking is hydraulic (unlocks automatically).
	HYDRAULIC SECURITY
	
2.	Opening the blue ball valve **(It must remain open during work)**.
	
3.	All sections of the machine must be in the raised position (antenna sensor closed)
4.	 • Switch on folding
5.	Apply pressure to 

6.		• After complete unfolding, turn off the unfolding mechanism
7.	Apply pressure to 	• To lift a rear section

16.7 Folding the machine



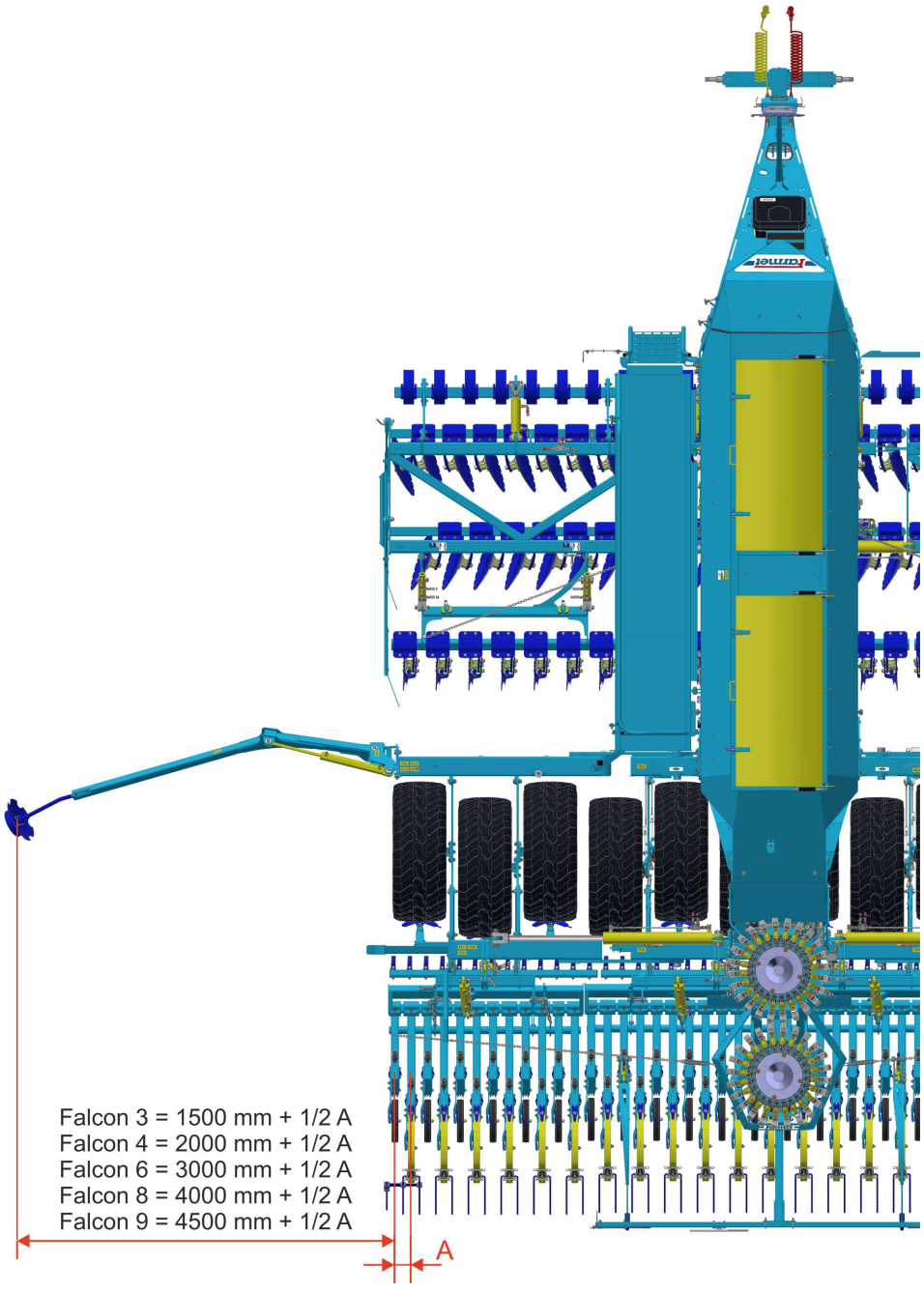
1. The machine must be in the upper position (antenna sensor closed).
2. 
   - Switch on folding
3. Apply pressure to 
4. 
   - Switch off folding when fully folded
5. Closing the blue ball valve.

16.8 Control and settings of the markers

- The markers are adjustable only to the center of the tractor, they copy the terrain, each track marker can be controlled separately and they are hydraulically tiltable.
- The distance of engagement of the marker disc is always measured from the center of the seed coulter. The markers must be set to the correct length in the field.

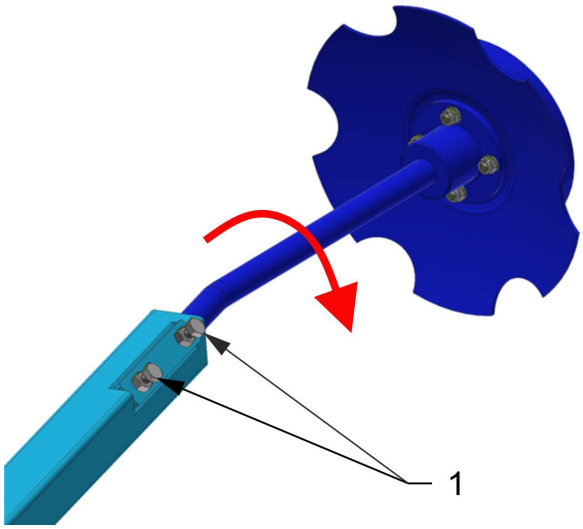
The markers are only activated when the machine is in the working position 



16.8.1 Settings of aggressivity of the markers

- Adjust the aggressivity of the markers depending on the soil conditions.

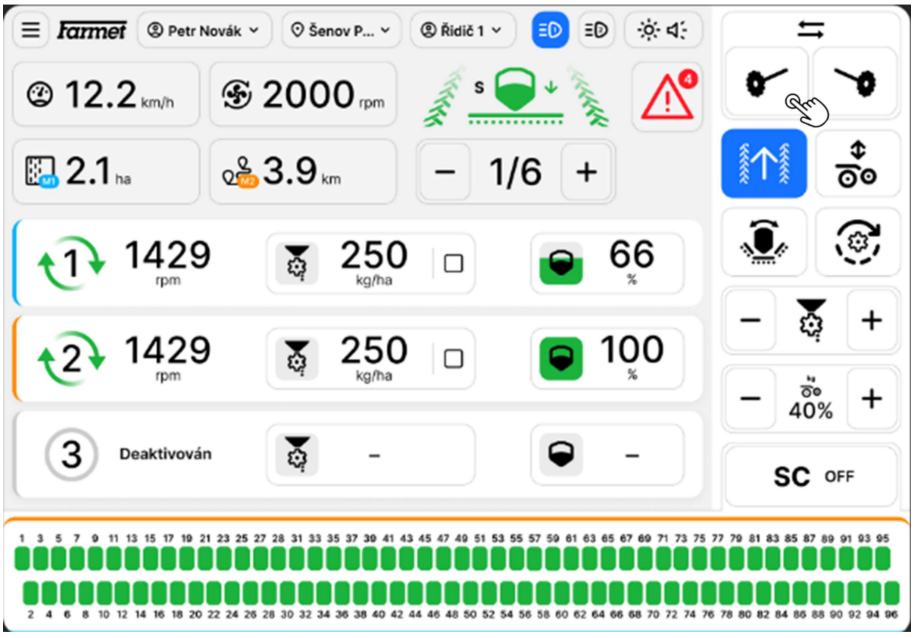
1. Loosen the hexagonal screws (1)



1 – Hexagonal safety screws

2. Adjust the marker and retighten the hexagonal screws.
3. Check the quality of the work of the markers and adjust the marker settings if necessary.

16.8.2 The markers control



- The markers control

After selecting the function, apply pressure to

The markers are controlled by a blue hydraulic circuit at the same time as the sowing section.

Function icon	Meaning
	Control of the left marker only
	Control of the right marker only
	Deactivation of seeding section movement – Hydraulics only control the marker without the rear seeding section.
	Control of both markers at the same time
	Deactivate marker control
	Deactivation of automatic marker change when lifting the seeding section. Delay settings.

16.8.3 Deactivate sowing section movement

- If the seeding section movement is deactivated, only the marker can be controlled by the hydraulic circuit, the seeding section remains in the working position.
- This function is used, for example, to safely bypass an obstacle, where seeding is not interrupted but the marker can be hydraulically retracted.

Seeding section movement function is deactivated

Seeding section movement function is active

1. 

   Deactivate seeding section movement on the work screen

2. Apply pressure to the blue circuit 

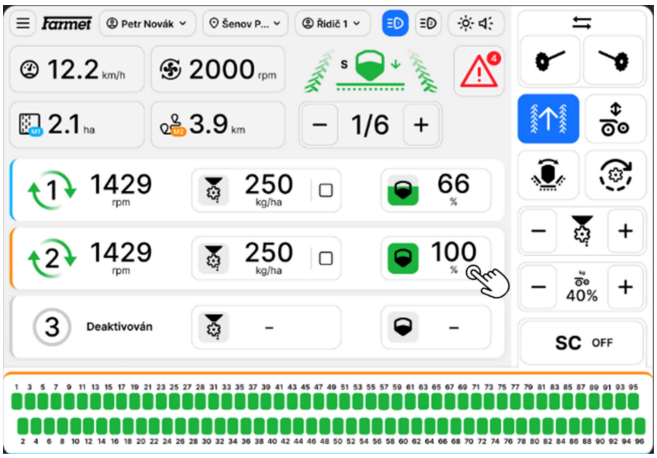
3. Bypass the obstacle and then apply pressure to the blue circuit 

4. 

   Activate seeding section movement on the work screen

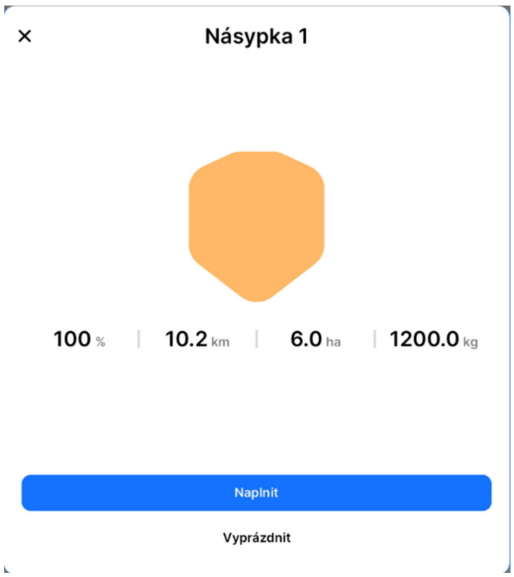
16.9 Enter the hopper fill

- The system allows the calculation of the tank status in real time, based on a calibration test. This function is not necessary for the correct operation of the machine.

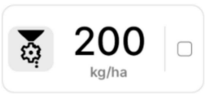


To enter the hopper filling, press the hopper button.

- **Fill** – to enter or add the filling quantity
- **Empty** – to enter a new filling quantity, the hopper must first be emptied

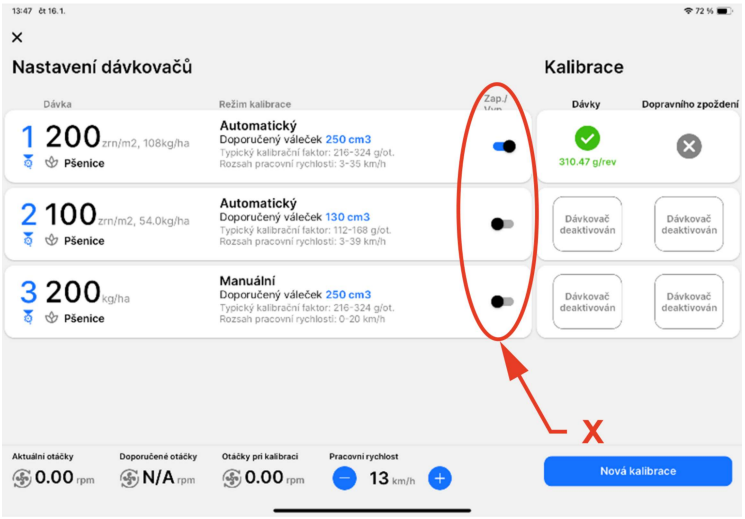


16.10 Activation / Deactivation dispenser



Press the dispenser button on the home screen

- This function is used to deactivate the metering motor, which we do not want too use during work (sowing with one metering unit, deactivation of fertilization).



X – Activation/Deactivation of Dispensers

- Dispenser settings remain saved even after the machine is disconnected from the power supply

16.11 Seed flow sensing Digitroll

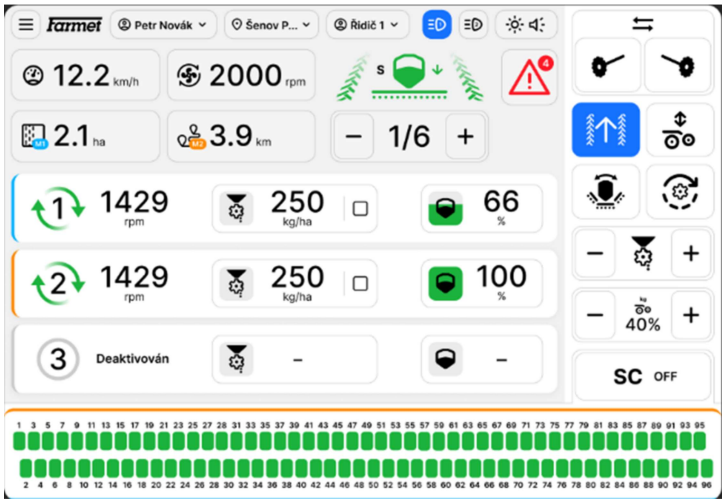
- Seed flow sensors are located immediately after the distribution head.
- These sensors are characterized by high reliability and accuracy.

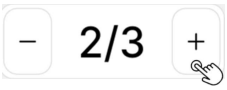
- The sensors are equipped with an LED for status indication

Green	OK	Yellow	Warning (clean the sensor)
Red	Error (blocked outlet)	Blue	Firmware update

- Sensor brackets can be disassembled for easy optical route maintenance and cleaning.

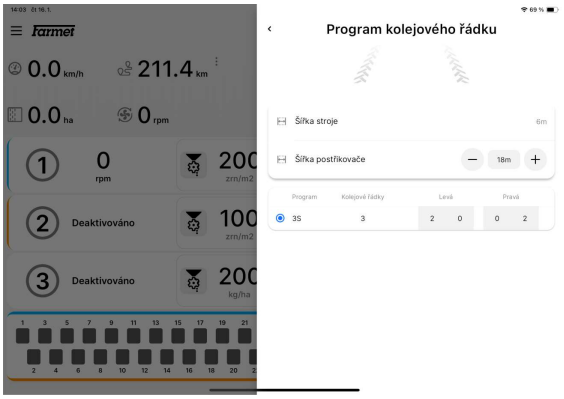
17 RAIL LINES



Functional icon	Meaning
	Press the settings button to enter the rail line rhythm setting menu.
	Use the + / - buttons to add or subtract a pass. For example, to correctly set the number of passes upon returning to the field. This function is active even during seeding.
	Deactivation the automatic addition of trips. If the tramline counting is stopped, the machine will do the tramline continuously.

17.1 Rail lines set on and off

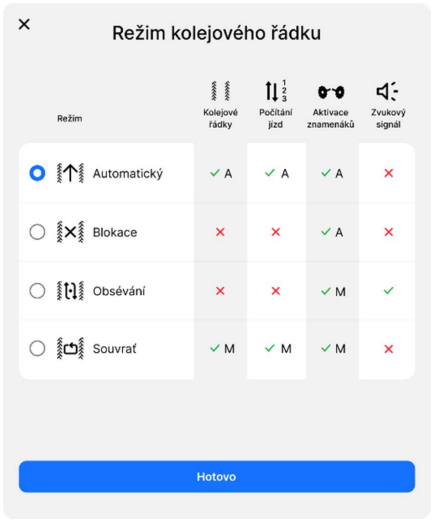
- On the main screen, press the button to enter the "Rail Line Program" menu.



Machine width	Factory set according to machine parameters
Sprayer width	Enter the width of the sprayer used.
Program selection	E.g., 3S, 4L, 4P etc.

Program 3S – rhythm of three runs, where the second run is a rolling.
Program 4L – start of a run from the left edge, where the second and third runs are tracks (the left edge of the machine makes the track)

On the main screen, press the button to enter the "Rail Line Mode" menu



- Automatic: Automatic pass addition when lifting the seeding section
- Block: Rail line formation is deactivated
- Over-seeding: Rail line formation is deactivated and markers operate in manual mode
- Headland: Manual setting of rail line and marker

17.2 Steps for setting the tramline rhythm correctly

Necessary information for calculating the rhythm of tramlines.

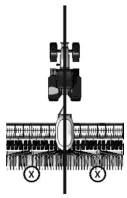
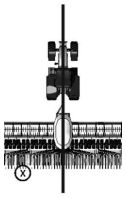
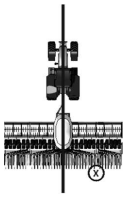
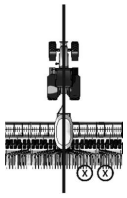
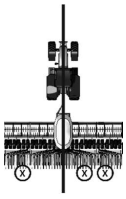
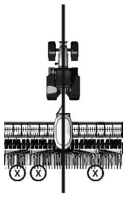
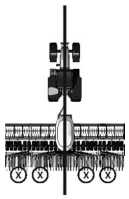
1. Seeder grip
2. Sprayer grip

We will perform calculation

Result of the calculation = Sprayer grip / Seeder grip

Possibilities of creating tramlines

1. Even results – Even tramline rhythms 17.2.1
2. Odd result – Odd tramline rhythms 17.2.2
3. Decimal results – Special tramline rhythms (17.2.3

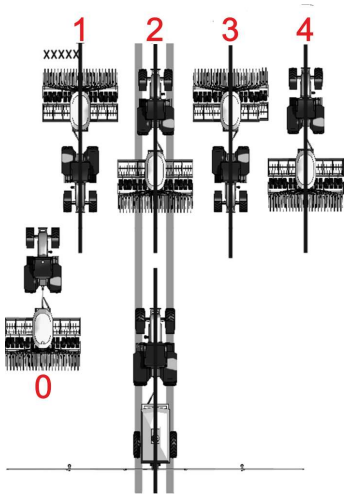
Types of valves placement on the machine	
	• TYP A • One valve on each side of the machine
or  	• TYP B • One valve on one side of the machine
or  	• TYP C Two valves on one side of the machine
or  	• TYP D • One valve on one side of the machine and two valves on the other side of the machine
	• TYP E • Two valves on each side of the machine and each side of the machine create a complete rail line for the entire sprayer (2 tracks)

17.2.1 Even tramline rhythms

- It is possible to create an even tramline during one or two runs.

1. During one run, tramlines are created on both sides of the machine
2. During two runs, tramlines are created, the valve is located only on one side of the machine
3. During one run, tramlines are created, both valves are on one side of the machine

Example: Creating a tramline on both sides of the machine at the same time.



- The example shows a 4s rhythm
- Rail lines are created in two runs (sprayer 12 m, seeder 3 m)
- Run 0 must be done separately
- For run 0 trip counting must be deactivated

Creating a tramline in one run TYPE A

Possible valve positions	Result of the calculation	RhNo.	The resulting rhythm	Left valves		Right valves	
	2	2 s	2		1		1
	4	4 s	4		2		2
	6	6 s	6		3		3
	8	8 s	8		4		4
	10	10 s	10		5		5
	12	12 s	12		6		6
	14	14 s	14		7		7

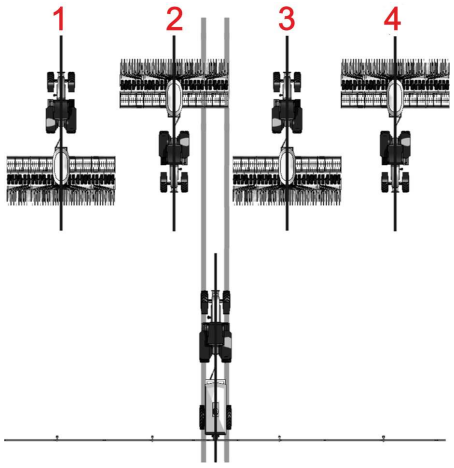
Start sowing from the left side of the TYPE B field

Possible valve positions	Result of the calculation	RhNo.	The resulting rhythm	Left valves		Right valves	
	2	2 L	2			2	1
	4	4 L	4	3	2		
	6	6 L	6			4	3
	8	8 L	8	5	4		
	10	10 L	10			6	5
	12	12 L	12	7	6		
	14	14 L	14			8	7

Start sowing from the right side of the TYPE B field

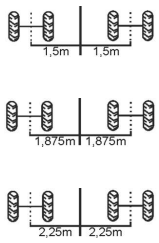
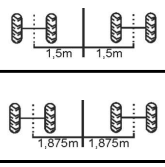
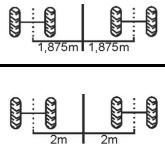
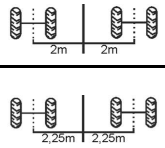
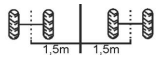
Possible valve positions	Result of the calculation	RhNo.	The resulting rhythm	Left valves		Right valves	
	2	2 P	2	2	1		
	4	4 P	4			3	2
	6	6 P	6	4	3		
	8	8 P	8			5	4
	10	10 P	10	6	5		
	12	12 P	12			7	6
	14	14 P	14	8	7		

Example: Creating a tramline on one side of the machine on which are both valves

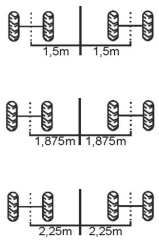
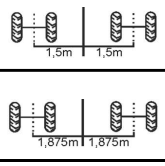
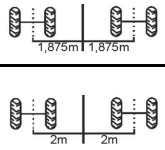
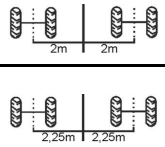
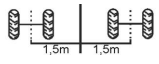


- The example shows an individual rhythm
- Rail lines are created in two runs (sprayer 24 m, seeder 6 m)

Start of sowing from the left side of the field, individual rhythm TYPE C/E

Possible valve positions	Result of the calculation	RhNo.	The resulting rhythm	Left valves		Right valves	
	2	999	2				1
	4	999	4		2		
							
							
	6	999	6				3

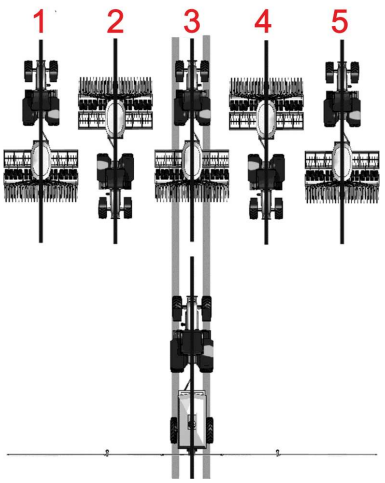
Start of sowing from the right side of the field, individual rhythm TYPE C/E

Possible valve positions	Result of the calculation	RhNo.	The resulting rhythm	Left valves		Right valves	
	2	999	2		1		
	4	999	4				2
							
							
	6	999	6		3		

17.2.2 Odd rhythms of tramlines

- Odd tramline rhythms are always created in one run. Odd tramline can only be created if the valves are on both sides of the machine.

Example: Creating a tramline one in one run



- The example shows rhythm number 5
- The tramlines are created in the third run (sprayer 15m, seeder 3m)

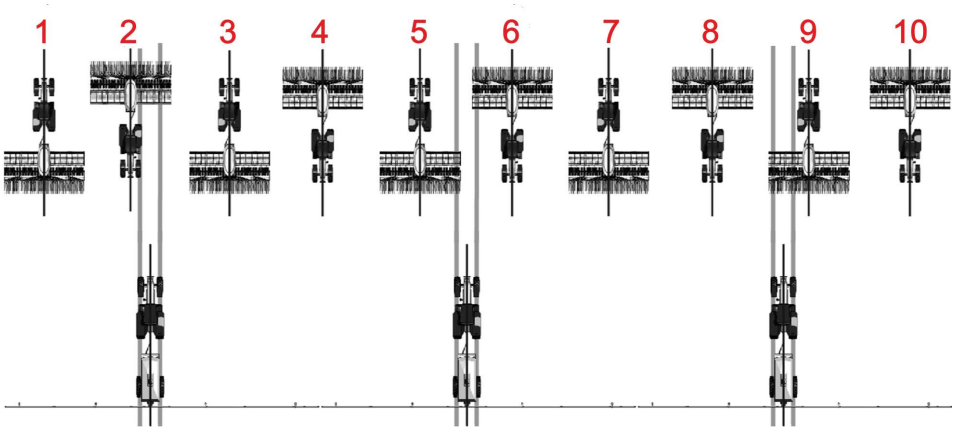
Creating a tramline in one run TYPE A

Possible valve positions	Result of the calculation	RhNo.	The resulting rhythm	Left valves		Right valves	
	3	3	3		2		2
	5	5	5		3		3
	7	7	7		4		4
	9	9	9		5		5
	11	11	11		6		6

17.2.3 Special tramline rhythms

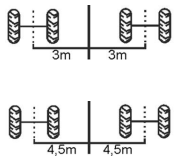
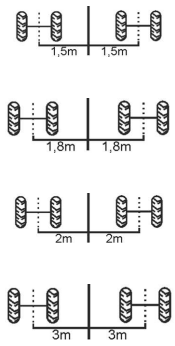
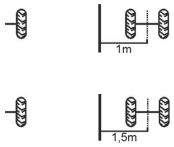
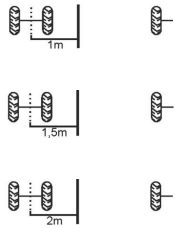
- Special rhythms are always created during four runs, they can only be created if the tramline valves are arranged on both sides of the machine.
- One tramline valve is on one side and two valves are on the other side of the machine.

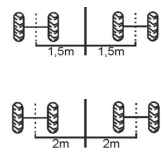
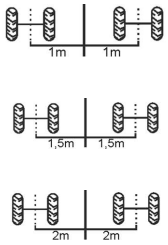
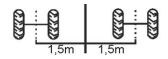
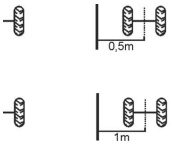
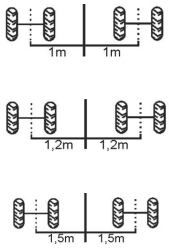
Example: Creating a tramline with a special rhythm.



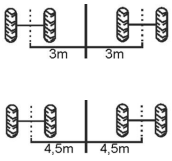
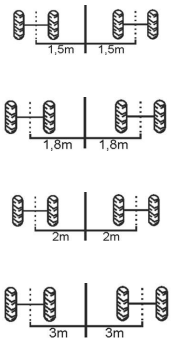
- The example shows rhythm number 20
- Rail lines are created during runs 2, 5, 6 and 9 (sprayer 20 m, seeder 6 m)

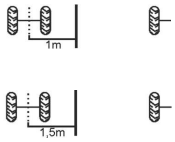
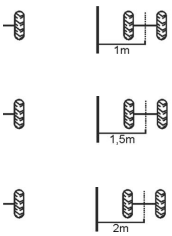
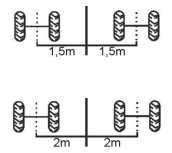
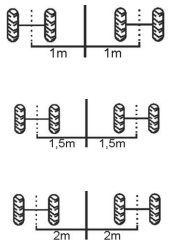
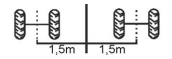
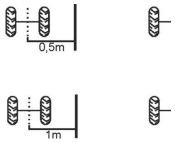
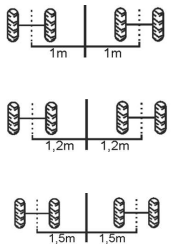
Start of sowing from the left side of the TYPE C/D/E field

Possible valve positions	Result of the calculation	RhNo.	The resulting rhythm	Left valve		Right valve	
	1,33	999	4	3	2	1	4
	1,5	22	6	4	3	6	1
	2,5	16	10	7	4	9	2
	2,67	62 L	8	5	4	7	2
	3,33	20	10	9	2	6	5

Possible valve positions	Result of the calculation	RhNo.	The resulting rhythm	Left valve		Right valve	
	3,5	28	14	13	2	9	6
	4,5	18	18	16	3	12	7
	4,67	63 L	14	3	12	7	8
	5,33	24	16	9	8	14	3
	5,5	65 L	22	14	9	3	20
	6,67	64 L	20	10	11	4	17
	7,5	30	30	27	4	19	12
	9,33	999	28	14	15	5	24

Start of sowing from the right side of the field TYPE C/D/E

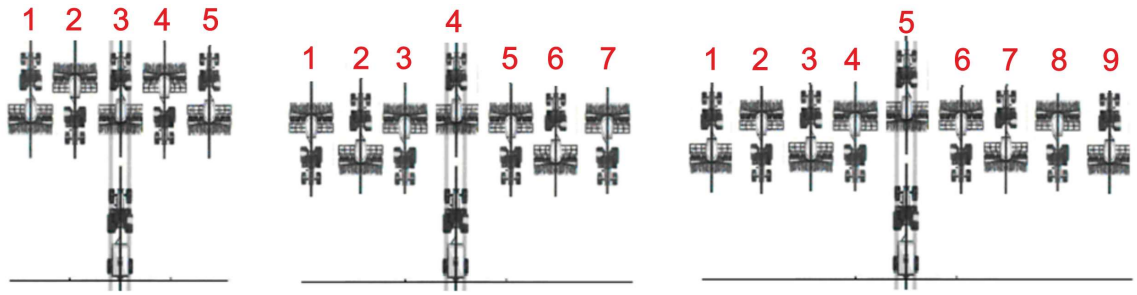
Possible valve positions	Result of the calculation	RhNo.	The resulting rhythm	Left valve		Right valve	
	1,33	999	4	1	4	3	2
	1,5	23	6	6	1	4	3
	2,5	15	10	9	2	7	4

Possible valve positions	Result of the calculation	RhNo.	The resulting rhythm	Left valves		Right valves	
	2,67	62 R	8	7	2	5	4
	3,33	21	10	6	5	9	2
	3,5	29	14	9	6	13	2
	4,5	19	18	12	7	16	3
	4,67	63 R	14	7	8	3	12
	5,33	25	16	14	3	9	8
	5,5	65 R	22	3	20	14	9
	6,67	64 R	20	4	17	10	11
	7,5	31	30	19	12	27	4
	9,33	999	28	5	24	14	15

17.3 The most frequently used tramline settings

The specific tramline setting is done in the tramline setting screen itself. For a better orientation and understanding of the setting of the tramlines, we present graphic and tabular processing here. The system for determining the rhythm of the tramlines follows from the graphic representation and the table

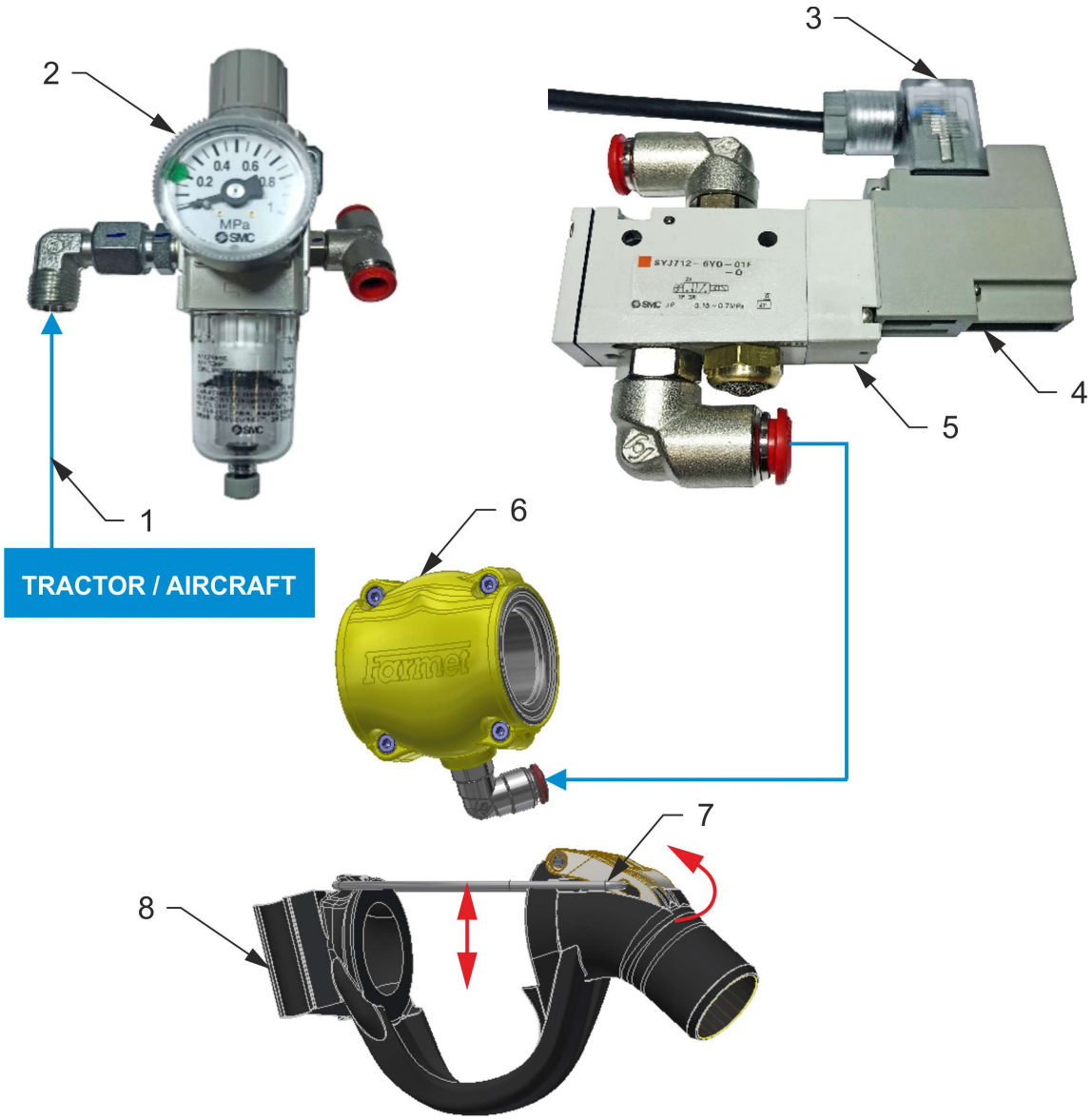
Seeder machine grip 3 m Sprayer grip 15 m	Seeder machine grip 6 m Sprayer grip 42 m	Seeder machine grip 4 m Sprayer grip 36 m



Grip of the machine (m)	Grip of the sprayer (m)	Program (Number of line)	Number of rides per machine width (length)	Left	Right
3	15	5	5	3	3
3	21	7	7	4	4
3	27	9	9	5	5
4	20	5	5	3	3
4	28	7	7	4	4
4	36	9	9	5	5
6	18	3	3	2	2
6	30	5	5	3	3
6	42	7	7	4	4
8	24	3	3	2	2
8	40	5	5	3	3

17.4 Rail line valves

- The tramline valves are closed with compressed air. It is necessary to have a red air hose connected to the compressed air connection from the tractor.
- For valves, it is important that no pressure escapes anywhere in the entire system.
- The pressure reducing valve must be set to 0,2 MPa.
- Check the valve drip tray.
- When the valve is running, the red signal light on the switchboard must always be on.



1	Compressed air supply from the tractor	5	Air distributor
2	Air pressure reducing valve	6	Air valve
3	Connector with red signal light	7	Secure locking lever valve
4	Switchboard solenoid	8	Body of air valve

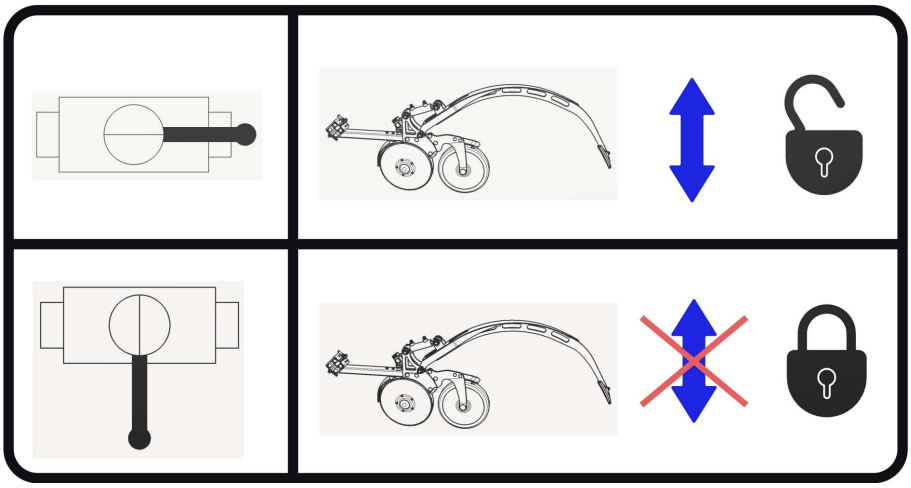
17.5 Air pressure reducing valve of the tramlines

- The air pressure reducing valve is located on the seed drill head holder.
  1. Slide out (upwards) the valve adjustment segment.
  2. Tighten to add pressure.
  3. Release to reduce pressure.
  4. After setting the required pressure of **0,2 MPA**, slide in the adjusting segment (downwards).

THE PRESSURE MUST ALWAYS BE SET TO 0,2 MPA.

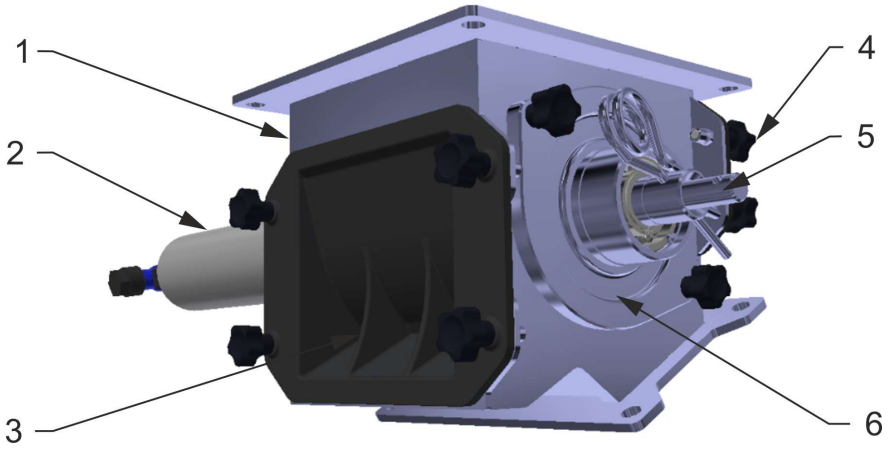
17.6 Tramline markers

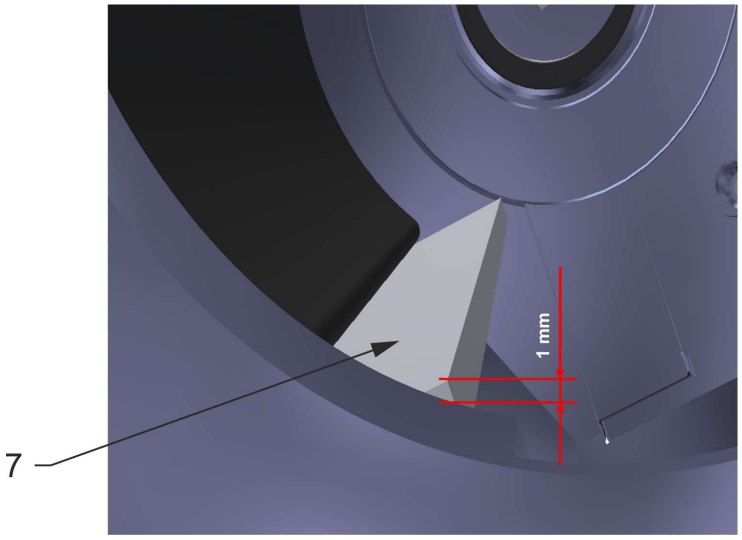
- The tramline markers are automatically controlled together with the tramline valves.
- The tramline markers can be deactivated using the ball valve on the rear target holder.



18 FARMET DISPENSER

- Dispenser with roller change system.





1	Body of Farmet dispenser	5	Dispenser shaft
2	Drive motor	6	Side cover with roller mounting
3	Dispenser front with bottom trowel	7	Lower roller trowel
4	Dispenser front with top trowel		

It is necessary to check both trowels of the dispenser rollers every day before work Any sign of deformation and loss of trowel material can lead to inaccurate dose requirements. The trowel can be rotated and used from the other side. In case of damage to both sides, we recommend purchasing a new part.
The trowel must extend 1-2mm beyond the edge of the circular opening of the dispenser.

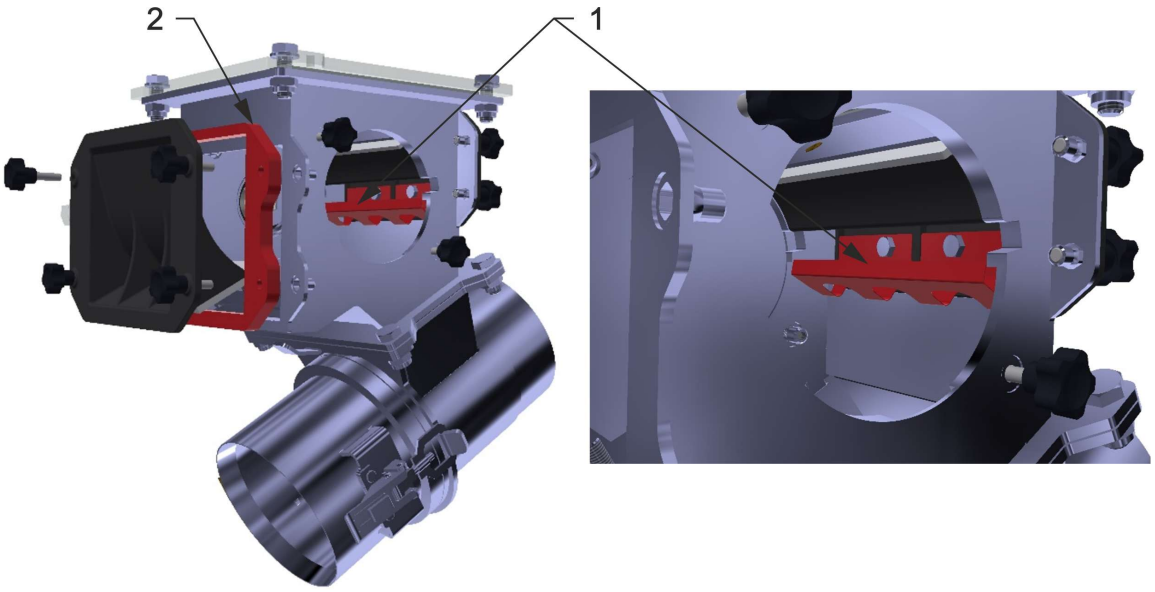
PBefore each use while standing, it is necessary to check the cleanliness of the roller and the dispenser. The roller must rotate freely in the metering unit. If dispenser gets stuck, there is a risk of breaking the fuse of the dispenser motor.

18.1 Dispenser function test

1. After installing a new roller, the function, centering and smooth running must be checked.
2. To start the roller, use the metering fill function or the sowing test.
3. The drive motor must run evenly “smoothly".
4. Check clutch centering. If running unevenly, the dosing is inaccurate and the motor can be overloaded.
5. At the point where the roller cuts, repair them, they must be reground or returned.
6. Loosen the screws on the side covers for the drive motor and roller bearing, and realign the side covers to prevent stress.
7. If the drive shaft is bent, it must be aligned or replaced.
8. If foreign bodies are stuck between the roller and the metering housing, they must be removed.
9. If there is dust or mordant in the roller between the metering discs and the spacer roller, disassemble and clean the roller.

18.2 Rough seeds

- For sowing rough seeds (corn, beans. peas, etc.) it is necessary to adjust the metering unit.
- The deflector (1) prevents large seeds from getting stuck between the metering cover and the roller. Failure to install the deflector could damage the roller, metering unit, or motor.
- For very large grains, a large seed adapter (2) can be fitted. This makes it easier for large grains to enter the dispenser and prevents grain damage.
- If necessary, add talc or graphite powder to the seed. Some types of large seeds do not spread well and may not completely fill the roller holes.

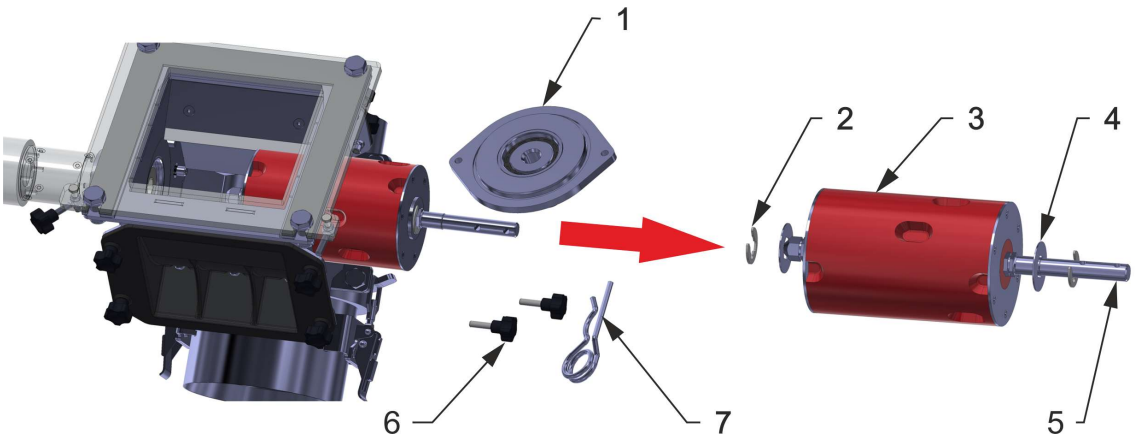


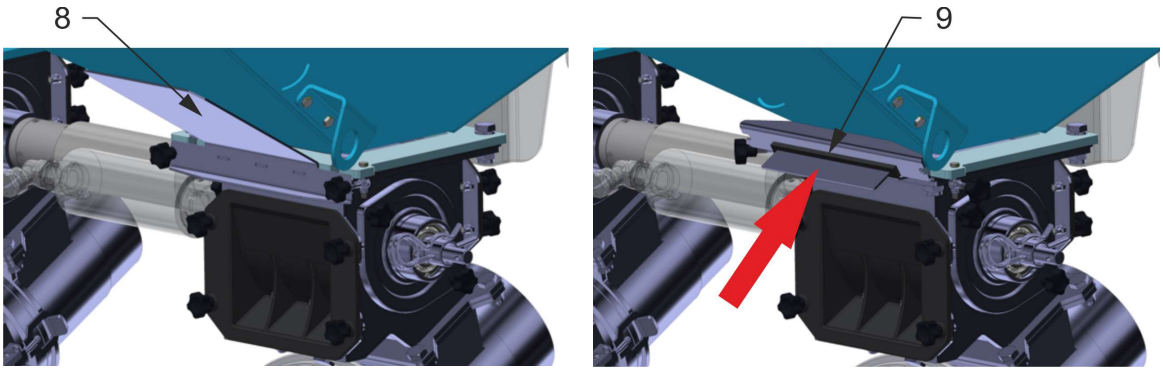
1	Deflector for large seeds	2	Adapter for large seeds

- When using the adapter for large seeds, it is necessary to use longer fixing screws L= 30 mm (accessories of the adapter frame).
- **Deflector set with an adapter for large seeds is part of the machine accessories.**

18.3 Roller replacement

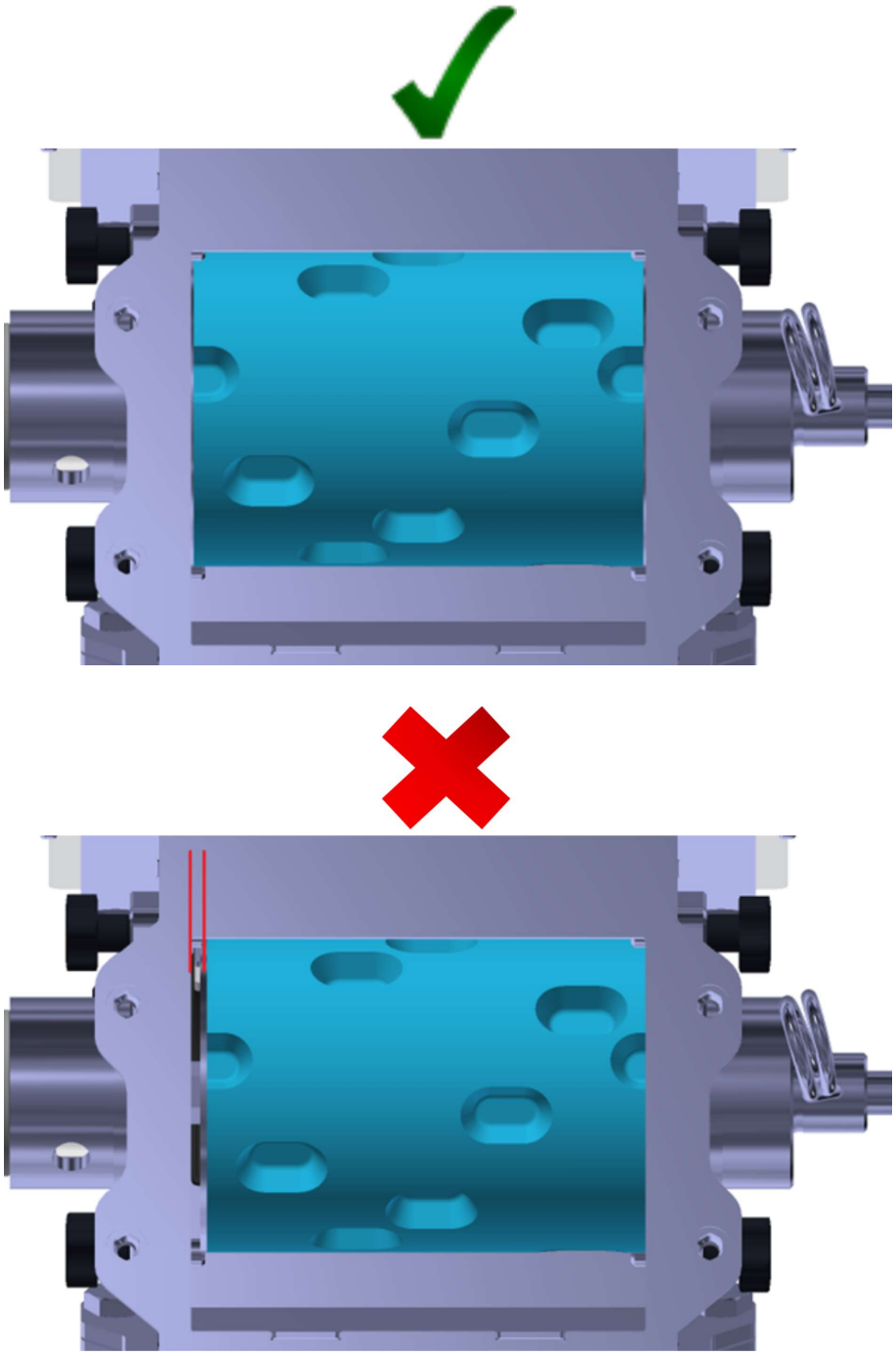
- After selecting the roller according to the table, the roller must be mounted in the metering unit.
  1. With the full hopper, slide the slider over the dispenser (9).
  2. Remove the screws (6) on the side cover of the metering roller (1).
  3. Remove the roller (3) with drive shaft (5) and the side lid (1).
  4. Remove the cotter pin (7).
  5. Remove the secure ring (2) and cover washers (4).
  6. Pull out the shaft (5) roller and mount it on a new roller. Keep the washers (4) on both sides of the roller!
  7. Secure the roller (3) with secure rings (2).
  8. Insert the roller (3) into the dispenser.
  9. Replace the side cover (1) and tighten the screws (6).
  10. Secure with a cotter pin (7) (the first hole on the shaft).
  11. Pull out the slider (8) and secure him to be sure that dispenser seals.
- After each roller change, the trowel settings and the centered operation of the roller must be checked.





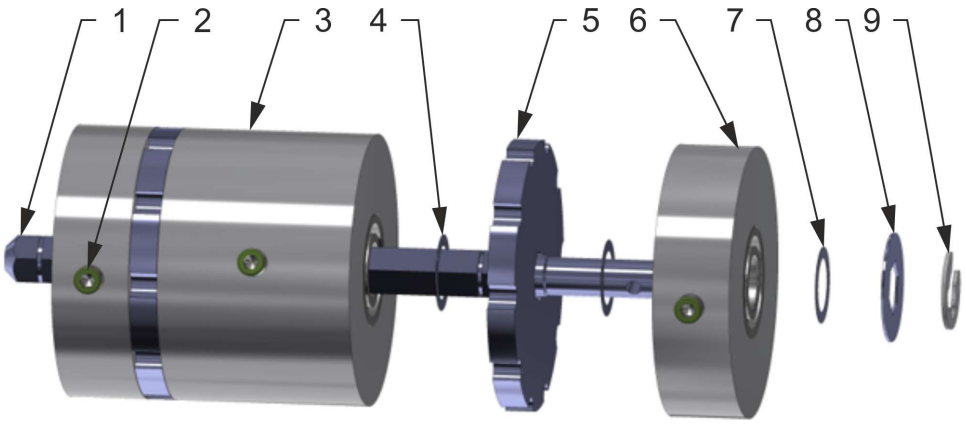
1	Side cover of the dosing roller	6	Screws
2	Secure ring	7	Cotter pin
3	Dosing roller	8	Closing slider in open position
4	Cover pad	9	Closing slider in closed position
5	Dosing roller shaft		

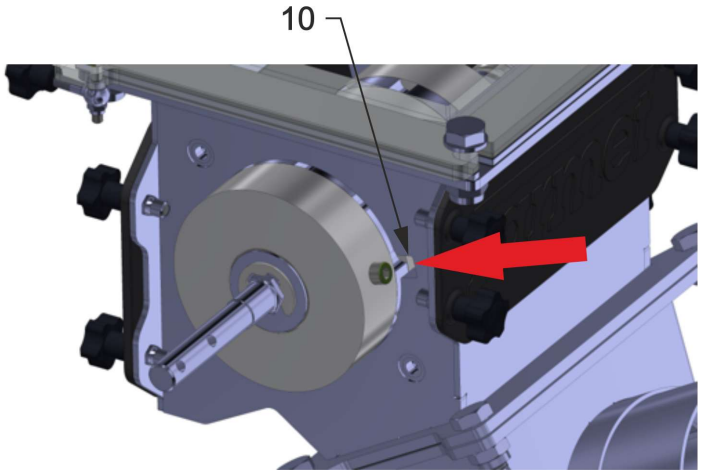
The cover washers (4) must be arranged so that the roller in the middle of the dispenser frame after assembly. See picture below.



18.4 Rollers for fine seeds

- The fine seed rollers consist of metering discs, spacer rollers and a drive shaft.
- The rollers can be mounted with one or two dosing discs.
- With the two dosing discs on the roller, the spread rate is doubled.
- The dosing disc is available with a dosing volume 3,5 cm^3, 9 cm^3.
- When sowing, only the metering discs in the roller rotate. The spacer cylinders are blocked stops on the housing.
- When assembling and disassembling the rollers, the screws (2) must be turned into the recess (10) in the dispenser body.



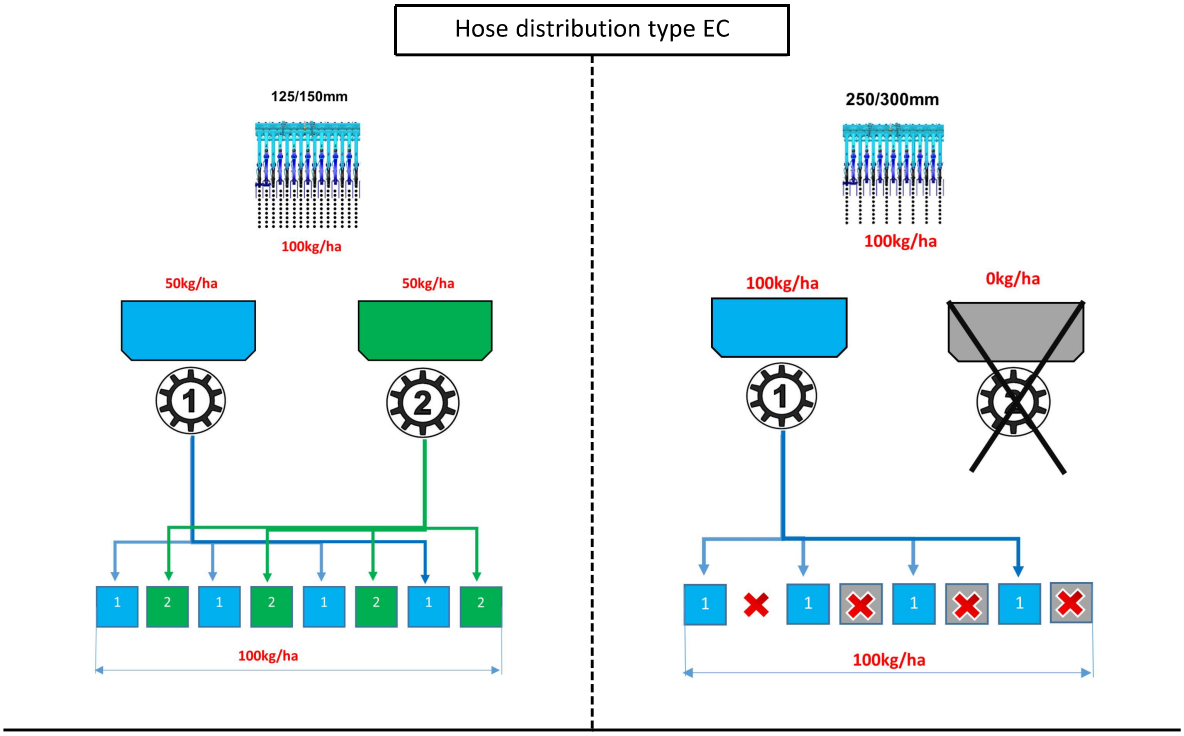


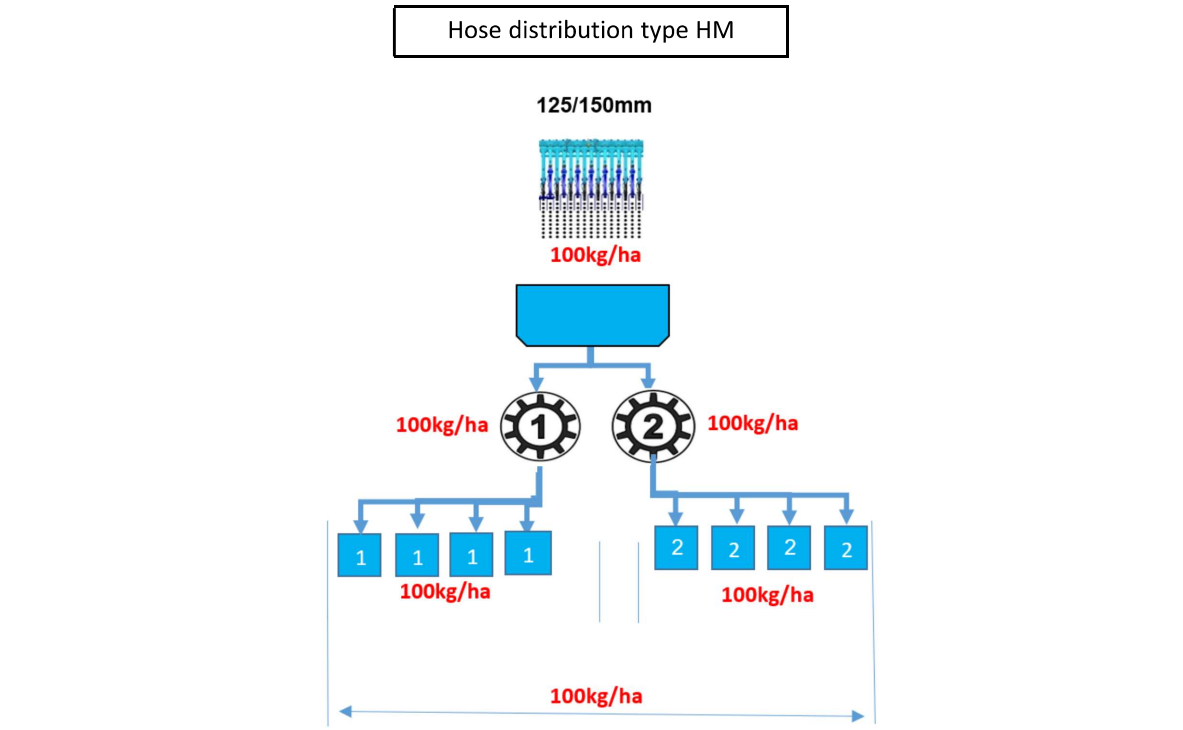
1	Roller shaft	6	Roller bearing
2	Anti-rotation screw (locking screw)	7	Spacer washer 0,2 mm
3	Spacer washer with lock	8	Cover washer 1 mm
4	Spacer washer 0,1mm	9	Secure ring
5	Dosing disc	10	Hole for locking screw (dispenser selection)

19 SOWING TEST

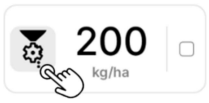
19.1 Hose distribution type

- Before the sowing test, it is necessary to know the type of hose distribution. ***See chapter 1 for your machine configuration.**

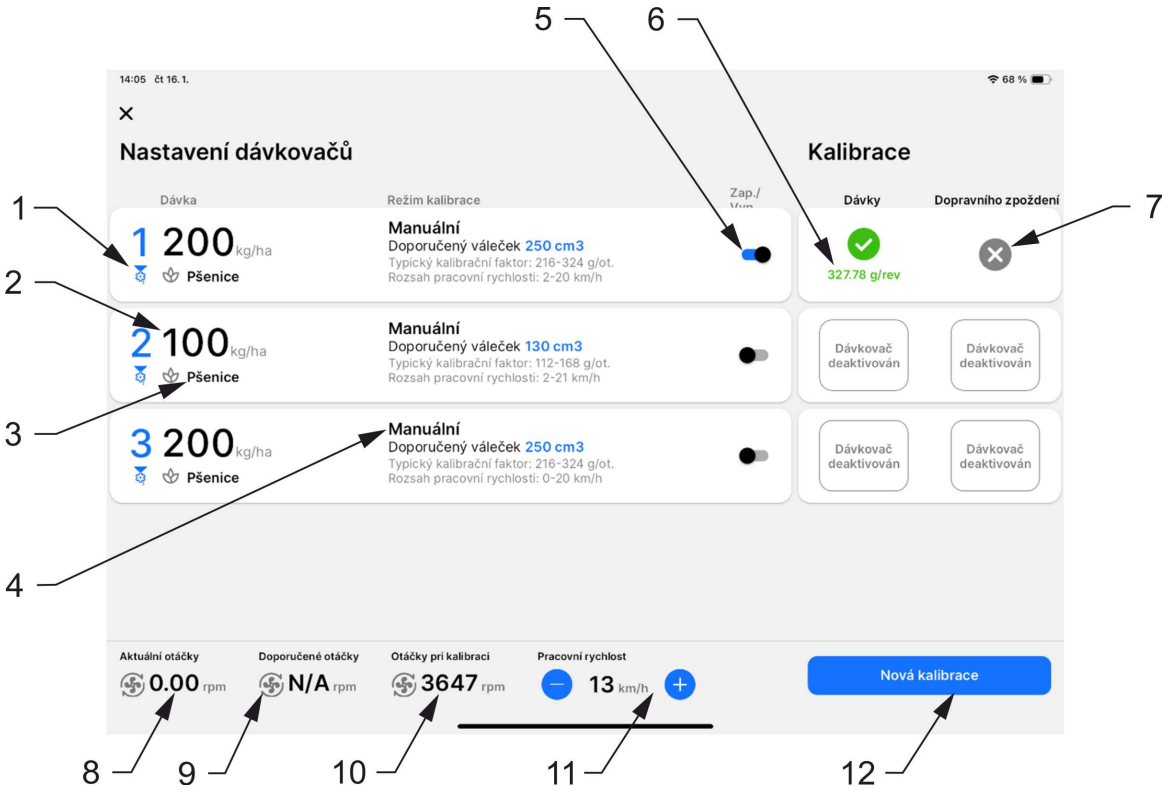




19.2 Sowing test settings



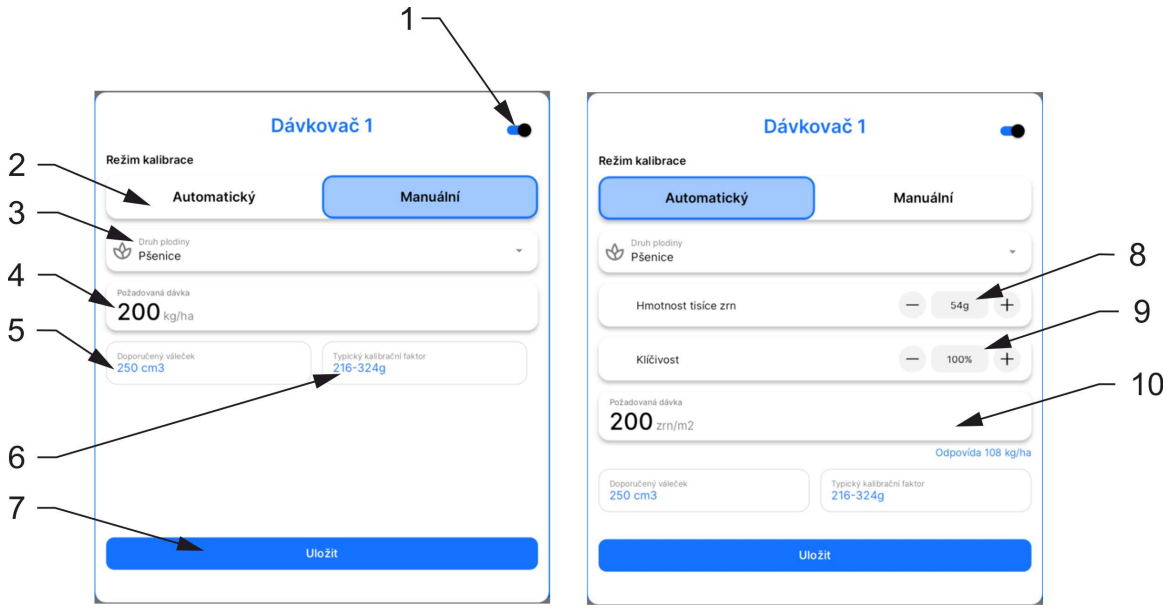
Press the dosing unit button on the home screen to go to Dispenser Settings



1	Dispenser number	7	Selection of transport delay calibration
2	Entering the required quantity	8	Display of current fan speed
3	Setting the crop	9	Recommended fan speed for automatic calibration
4	Calibration type (manual, automatic)	10	Fan speed at last automatic calibration
5	Dispenser activation and deactivation	11	Setting the estimated working speed
6	Selection of amount calibration	12	Enter the "New Calibration" menu

- To set calibration parameters, press the desired dispenser.

- There are two calibration methods to choose from, manual and automatic

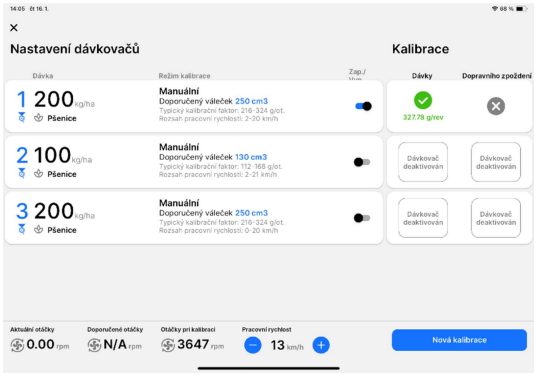


1	Deactivation of dispenser	6	Indicative calibration factor for the selected roller
2	Manual/automatic selection	7	Save entered parameters
3	Setting the crop	8	Thousand kernel weight (TKW)
4	Entering the amount in kg/ha	9	Seed germination value
5	Recommended roller according to the specified crop	10	Entering the amount of grains/m2

19.2.1 Manual seeding test

1. Accessories for this purpose are needed to perform the seeding test.

   - Scale
   - Bucket



2. Select the desired type of calibration, amount or transport delay

3. Select the dispenser to be calibrated, it is possible to select all, the calibration then proceeds in sequence

4. For a roller dispenser, select the correct type of seed and then use the recommended roller indicated in the application or seeding table – Chapter 19.3

5. Check the cleanliness of the dispenser, roller and the condition of the scraper. The scraper must adhere to the roller – Chapter 18

6. Working speed – estimated speed during work.
   Example: **10 km/h**

7. Amount – amount to be seeded
   Example:
   One dispenser: Total requirement for the dispenser 200 kg/ha, set 200 kg/ha.
   EC distribution: Requirement 200 kg/ha, set 100 kg/ha for each dispenser.
   HM distribution: Requirement 200 kg/ha, set 200 kg/ha for each dispenser.

8. The calibration factor is automatically set by selecting the crop.
   Example: **150 g/RPM.**

   - Calibration factor – number of grams per roller revolution
   - The calibration factor is only indicative. After the seeding test, the calibration factor is automatically recalculated

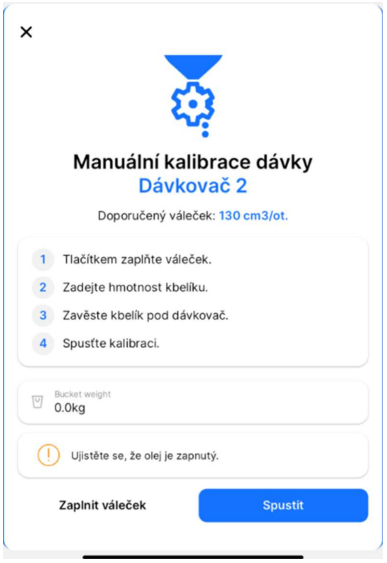
9. Hang the calibration bucket

10. Press the "New Calibration" button

11. Open the slide

Before starting the calibration, press the "fill roller" button; when refilling the hopper, the seeds are not around the entire circumference of the roller and a measurement error may occur.

The application menu allows you to enter the weight of the bucket, which will be automatically subtracted from the total weight during weighing.



12. Fill the roller

13. Pay attention to the selected units on the weighing device

14. Empty the bucket

15. Enter the weight of the bucket, which will be subtracted from the total weight after calibration

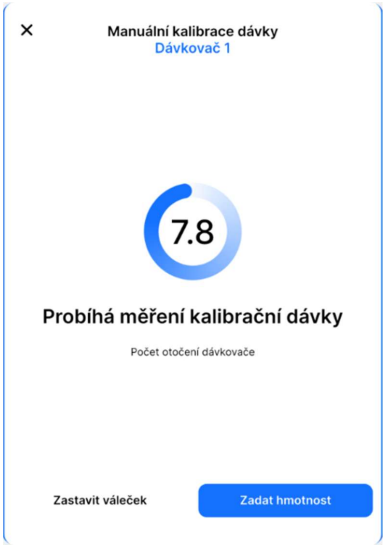
16. Hang the calibration bucket on the dispenser

17. Press the "Start Calibration" button“

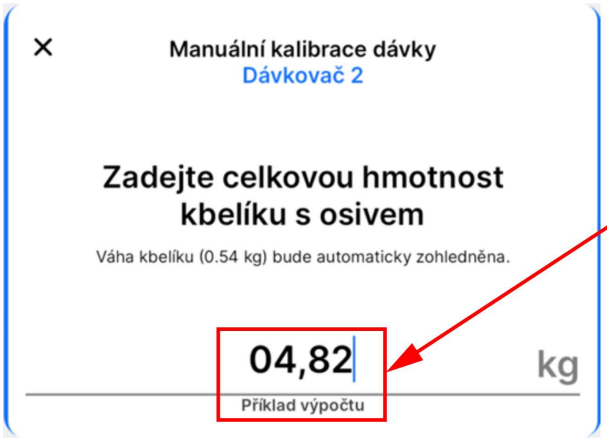
18. a) Press the calibration switch

18. b) Press the "Start" button on the control tablet
There must be a larger amount of seeds in the bucket for accurate calibration.
Example: Wheat 4 kg, Rapeseed 0.6 kg

19. Calibration is in progress, this phase displays how many times the dispenser has rotated. The operator has the option to press the "Stop Roller" button and rotate it again, or press "Enter Weight“



20. After turning off the calibration switch, or pressing the "Enter Weight" button, enter the weighed value into the tablet and press "Confirm". The entered bucket weight is automatically subtracted from the total weighed value.



If you have not entered the bucket weight into the system, it is necessary to subtract the bucket weight when entering the seed weight, otherwise a measurement and seeding error will occur.

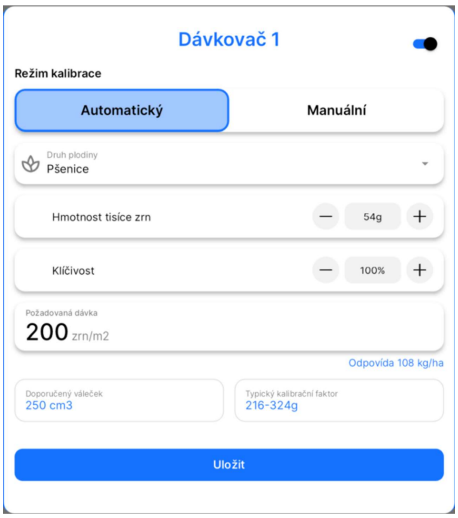
21. Check if the minimum and maximum **speed** are satisfactory.

- If **NOT SATISFACTORY**, replace the roller and repeat the test.
- Minimum speed is too high = choose a smaller roller **(ideal speed is from 1.5 km/h).**
- Maximum speed is too low = choose a larger roller.
- **Deviation** – For a roller dispenser it should not be greater than 2%, for a screw dispenser 5%.

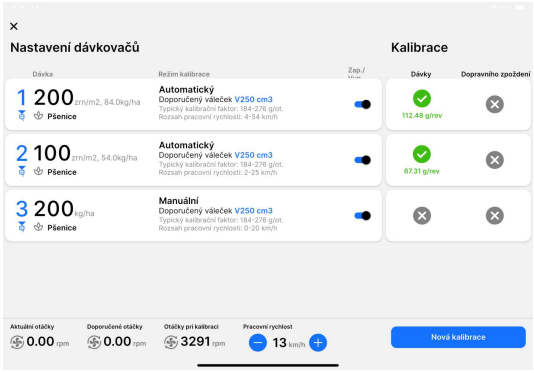
Repeat the same calibration procedure for the other dispensers. **The working range of electric motor speed is 20–120 RPM (this value is on the working screen for each dispenser). The recommended dispenser speed is around 80 RPM at the specified speed, e.g. 12 km/h.**

19.2.2 Automatic seeding test

1. To set up automatic calibration, switch to "Automatic" calibration mode in the Dispenser menu, see Chapter 19.2



2. Enter the required values, such as the thousand kernel weight (TKW) and germination rate indicated on the seed used



3. Select the desired type of calibration, amount or transport delay

Transport delay measurement can only be activated if the machine is equipped with a Section Control system, this function must be turned on.

4. Select the dispenser to be calibrated, it is possible to select all, the calibration then proceeds in sequence

5. For a roller dispenser, select the correct type of seed and then use the recommended roller indicated in the application or seeding table – Chapter 19.3

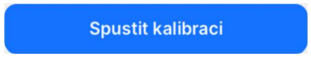
6. Check the cleanliness of the dispenser, roller and the condition of the scraper. The scraper must adhere to the roller – Chapter 18

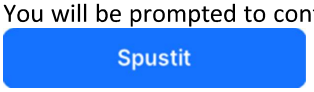
7. Working speed – estimated speed during work.
Example: 10 km/h.

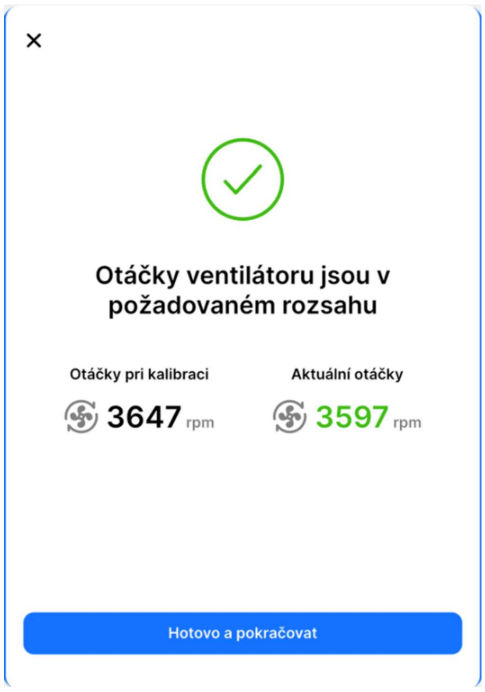
8. Amount – amount to be seeded
Example:
One dispenser: Total requirement for the dispenser 200 kg/ha, set 200 kg/ha.
EC distribution: Requirement 200 kg/ha, set 100 kg/ha for each dispenser.
HM distribution: Requirement 200 kg/ha, set 200 kg/ha for each dispenser.

9. The calibration factor is automatically set by selecting the crop
Example: **150 g/RPM.**

- Calibration factor – number of grams per roller revolution
- The calibration factor is only indicative. After the seeding test, the calibration factor is automatically recalculated

10. Set the current fan speed according to the recommended
11. Press the "New Calibration" button“
12. Open the slide
13. The roller will fill automatically
14. Press the "Start Calibration" button“ 

15. You will be prompted to confirm your set fan speed 



16. Subsequently, the automatic calibration system will start, where the roller will first be filled and then the calibration factor will be measured.
17. Check if the minimum and maximum **speed** are satisfactory.

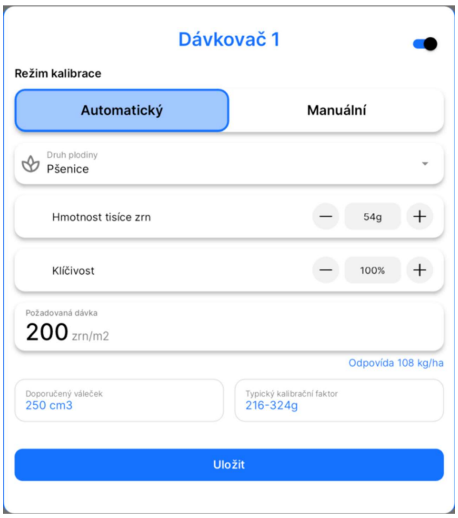
- If **NOT SATISFACTORY**, replace the roller and repeat the test.
- Minimum speed is too high = choose a smaller roller **(ideal speed is from 1.5 km/h)**.
- Maximum speed is too low = choose a larger roller.
- We recommend executing the calibration twice to check that the obtained calibration factor value, gram/dispenser revolution, is stable and does not change significantly.
- **Deviation** – For a roller dispenser it should not be greater than 2%, for a screw dispenser 5%..

Repeat the same calibration procedure for the other dispensers. **The working range of electric motor speed is 20–120 RPM (this value is on the working screen for each dispenser). The recommended dispenser speed is around 80 RPM at the specified speed, e.g. 12 km/h.**

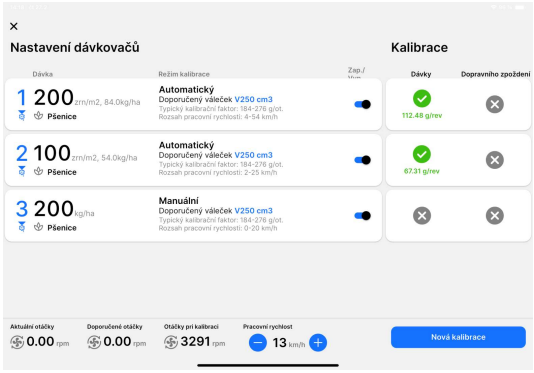
19.2.3 Automatic transport delay setting

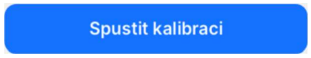
Transport delay measurement can only be activated if the machine is equipped with a Section Control system, this function must be turned on

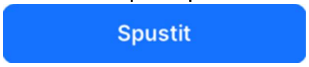
1. To set up transport delay measurement, switch to "Automatic" calibration mode in the Dispenser menu, see Chapter 19.2



Select the desired type of calibration, amount or transport delay, it is possible to select both options at the same time

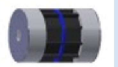
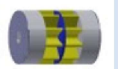


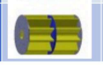
2. Select the dispenser to be calibrated, it is possible to select all, the calibration then proceeds in sequence
3. Check the cleanliness of the dispenser, roller and the condition of the scraper. The scraper must adhere to the roller – Chapter18
4. Working speed – estimated speed during work.
   Example: 10 km/h.
5. Set the current fan speed according to the recommended
6. Press the "New Calibration" button“
7. Open the slide
8. The roller will fill automatically
9. Press the "Start Calibration" button“ 

10. You will be prompted to confirm the set fan speed
    

16. Subsequently, the automatic transport delay measurement system will start, where the roller will first be filled and then the measurement will take place.

19.3 Sowing tables for FARMET dispenser

Roller		Machine grip	3 m		4 m		6 m		8 m	9 m	Crop
		Numbers of dispensers	1	2	1	2	1	2	2	2	
V3,5		5-15 km/h kg/ha min	1,0	2,0	0,8	1,5	0,6	1,0	0,8	0,6	Rape, mustard, grass etc.
		5-15 km/h kg/ha max	3,6	7,2	2,7	5,4	1,8	3,6	2,7	2,4	
V7		5-15 km/h kg/ha min	2,0	4,0	1,5	3,0	1,0	2,0	1,5	1,3	Rape, mustard, grass etc.
		5-15 km/h kg/ha max	7,2	14,4	5,4	10,8	3,6	7,2	5,4	4,8	
V18		5-15 km/h kg/ha min	5,5	11	4	8	3	5,5	4	3,5	Mustard, grass etc.
		5-15 km/h kg/ha max	18	36	12	28	9	18	14	12,4	
V20		5-15 km/h kg/ha min	6	12	4,5	9	3	6	4,5	4	Corn
		5-15 km/h kg/ha max	34	68	25	50	17	34	25	22	
V40		5-15 km/h kg/ha min	11	22	8,2	16,4	5,5	11	8,2	7,3	Grain, corn, spelled without chaff
		5-15 km/h kg/ha max	60	120	45	90	30	60	45	40	
V100		5-15 km/h kg/ha min	60	120	45	90	30	60	45	40	Grain, corn, spelled without chaff
		5-15 km/h kg/ha max	140	280	95	190	70	140	97	92	
V130		5-15 km/h kg/ha min	98	196	74	148	49	98	33	66	Grain, corn, spelled without chaff
		5-15 km/h kg/ha max	180	360	135	270	90	180	135	120	
V250		5-15 km/h kg/ha min	180	360	135	270	90	180	135	120	Grain, spelled without chaff, sunflower
		5-15 km/h kg/ha max	350	700	270	540	175	350	260	240	
V260		5-15 km/h kg/ha min	200	400	150	300	100	200	132	130	Grain, corn, peas, broad, beans, soybeans, spelled with chaff, sunflower, solid fertilizers
		5-15 km/h kg/ha max	380	760	285	570	190	380	255	250	
V500		5-15 km/h kg/ha min			285		190		255	250	Grain, corn, peas, broad, beans, soybeans, spelled with chaff, sunflower, solid fertilizers
		5-15 km/h kg/ha max			570		380		530	500	

CALIBRATION FACTOR TABLE OF FARMET DISPENSER ROLLER													
SPECIES			WHEAT	BARLEY	OATS	PEAS	CORN	MUSTARD	RAPE	POPPY	LUCERNE	GRASS	PHACELIA
Roller		Cm³/rpm	g/cm³										
			0,77	0,68	0,5	0,81	0,79	0,6	0,65	0,4	0,8	0,36	0,22
V3,5		3,5						2	2,7	1	3	1	1
V7		7						4	5,4	3	6	3	2
V18		18						10				8	5
V20		20					24						
V40		40	43	37	25	44	48						
V100		100	108	92	64	110	120						
V130		130	139	122	84	142	150						
V250		250	270	230	160	275	300						
V260		260	270	230	160	275	300						
V500		500	540	460	320	580	600						

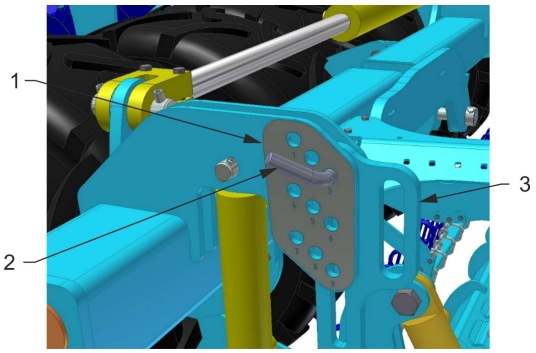
NOTE: The calibration factors in this table are for guidance only. After the calibration test, the calibration factor is automatically recalculated.

20 SETTINGS OF SEED SECTION

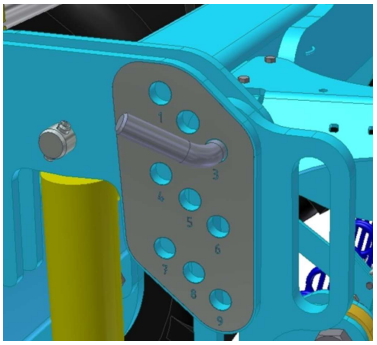
- For optimum seed placement must be observed the following parameters.
  1. Required sowing depth
  2. The amount of pressure

20.1 Sowing depth setting

- The sowing depth is set using the pin (2), which is adjusted in the holes of the setting link (1).
- Each hole corresponds to a certain sowing depth. This only applies when the machine is level.



1	Metal plate with scale from 1 to 9
2	Depth adjustment pin
3	The pull of the backdrop



1	Sowing depth 1 cm	6	Sowing depth 6 cm
2	Sowing depth 2 cm	7	Sowing depth 7 cm
3	Sowing depth 3 cm	8	Sowing depth 8 cm
4	Sowing depth 4 cm	9	Sowing depth 9 cm
5	Sowing depth 5 cm		

The values in the table are for guidance only, they may vary according to soil conditions.

20.1.1 Recommended depth

- The setting of the sowing depth and the coulter pressure interact.
- After each sowing depth change, drive a few meters and check the seed placement depth and the coulter pressure.

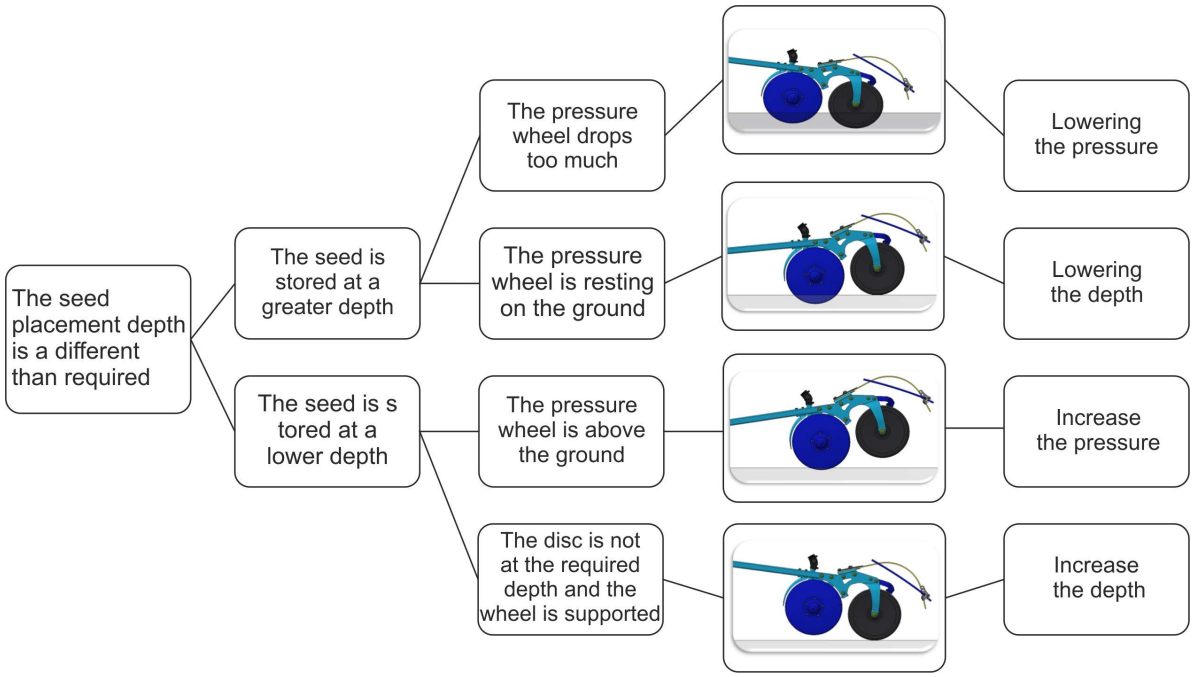
Species	Recommended sowing depth	Recommended sowing rate
Spring wheat	4–5 cm	220 kg
Spring triticale	4 cm	200 kg
Spring barley	3–5 cm	200 kg
Oat	3–5 cm	200 kg
Corn	5–8 cm	20–70 kg
Buckwheat	3–5 cm	70 kg
Peas	4–6 cm	250–300 kg
Spring weasel	4–6 cm	120–180 kg
Broad bean	6 cm	180–250 kg
White lupine	6–8 cm	160–180 kg
Spring rape	2–3 cm	3–6 kg
White mustard	2–3 cm	8–10 kg
Poppy seeds	1–2 cm	1 kg
Sunflower	4–6 cm	4–25 kg
Meadow clover	1–2 cm	15–20 kg
Lucerne	1–2 cm	8–16 kg

20.2 Sowing section pressure setting

	PRESSURE [kg]	
DEPTH [cm]	LIGHT / SANDY SOILS	HEAVY / CLAY SOILS
1	35	60
2	45	70
3	55	80
4	65	90
5	70	100
6	80	110
7	90	115
8	100	120

- **These are indicative recommended values. The correct pressure for a given specific condition may be different and must be adjusted accordingly. In case of dry weather, we recommended increasing the pressure.**

- Check the seed placement depth in the field after each change of coulter pressure or sowing depth.
  1. Lower the machine to the working position, drive a few meters.
  2. Check the required seed placement depth and seedbed compaction.



- If the machine is raised, the pressure is too high = lower the pressure.
- The pressure must always be set according to the soil conditions.
- If the pressure is too low, the sowing depth may be unevenly distributed.

20.2.1 Pressure increase and decrease

Increase the pressure

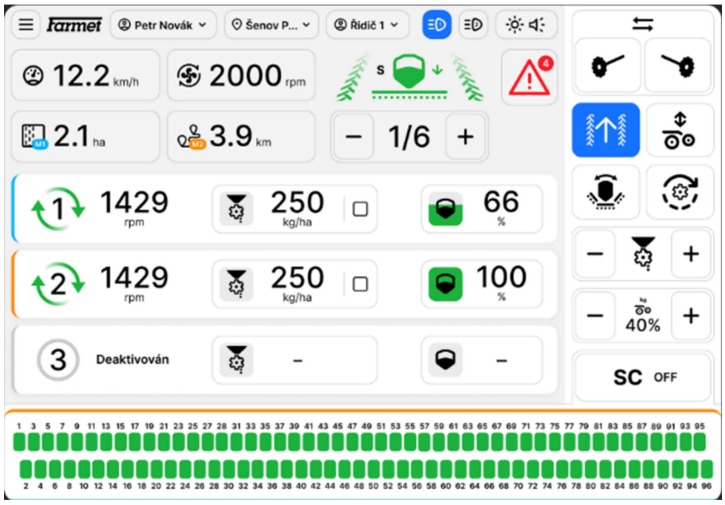
1. Apply pressure to a and leave it closed.
2. Use the wheel to gradually tighten the pressure reducing valve to increase the coulter pressure.
3. Again drive a few meters and check the seed placement depth.

Lowering the pressure

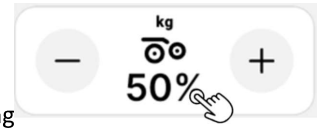
1. For lowering the pressure, raise the seed section to the upper position with
2. Releasing the pressure reducing valve reduces the pressure.
3. Lower the sowing section to the working position with
4. Check the reduced pressure on the manometer.
5. Again drive a few meters and check the seed placement depth.

20.2.2 Electronic pressure increase and decrease

For machines equipped with an electronic pressure control valve, the pressure is adjusted on the control tablet.

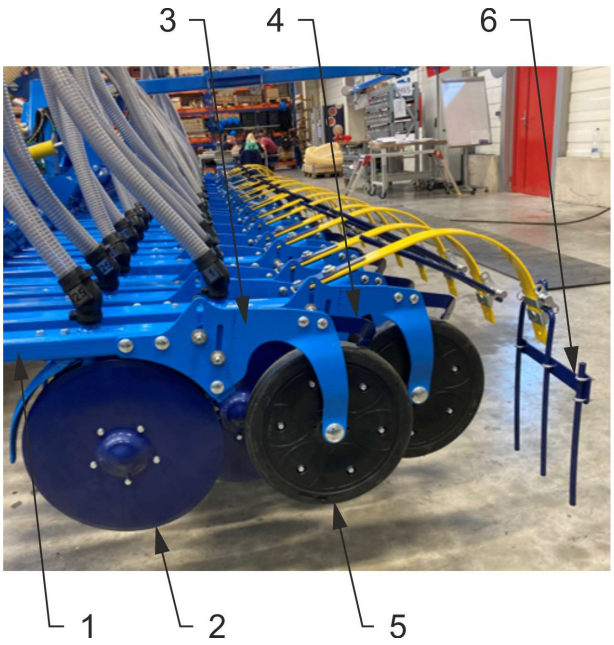


- Button to decrease or increase pressure in % of weight. For example 100% = 

120 kg pressure on each coulter.
- The pressure value step can be adjusted by pressing 

20.3 Seed coulters

Description of the seed coulters



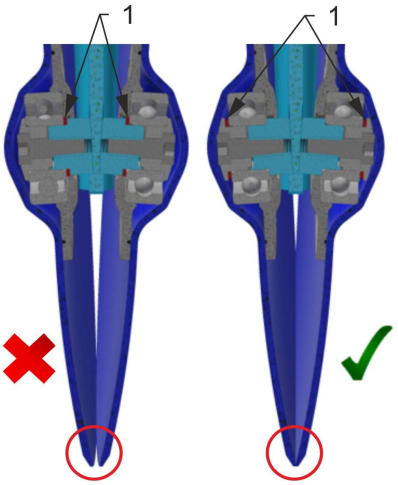
1	Seed coulter frame	4	Pressure wheel scraper
2	Coulter discs	5	Pressure wheel
3	Comb of the wheel	6	Harrow

- The seed is sown with the coulters.
- The coulter discs (2) cut through the seedbed and expose the seed grove.
- The seed is stored between the discs (2).
- The pressure wheel (5) guides the seed coulter and closes the groove.
- The harrow (6) covers the sowing row with soil and levels the soil.
- The coulter is stored in maintenance-free rubber bearings.

Coulter discs

- The discs are located at the front, are V-shaped for each other for low tensile strength and the formation of a groove for seed placement.

Disk adjustment



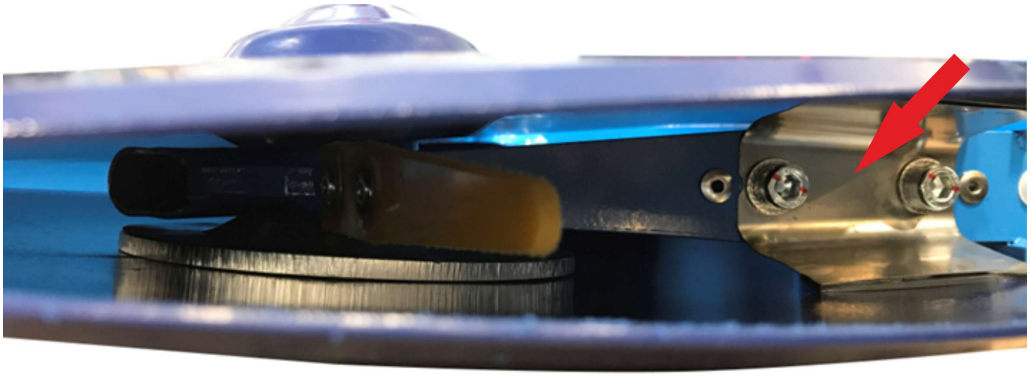
- In case of wear the seed discs, it is necessary to adjust the distance between the discs by changing the location of the spacers.
- All 4 spacers (1) must always be used on each coulter. If all 4 spacers (1) are not used – **the coulter will be damaged**.
- The discs must be slightly pretensioned on the blade. However, it must be possible to turn them easily.
- When rotating one disc, the other must be rotated reliable.
- If the discs stop or lock due to incorrect preload, the seed will start to aggregate.

20.3.1 Disc and pressure wheel trowels

- The trowels remove dirt from the discs and pressure wheels.
- Regularly check the function and wear of the trowels.

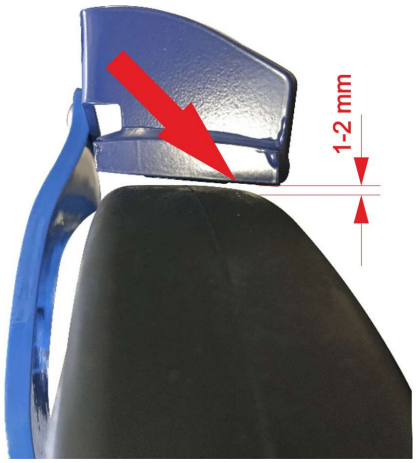
Disc trowels

- The trowel has a carbide tip the edges.
- Make sure that the entire trowel rests evenly on the surface of the disc.



Pressure wheel scraper

- The distance of the scraper from the wheel must be 1-2 mm.



20.3.2 Pressure wheel

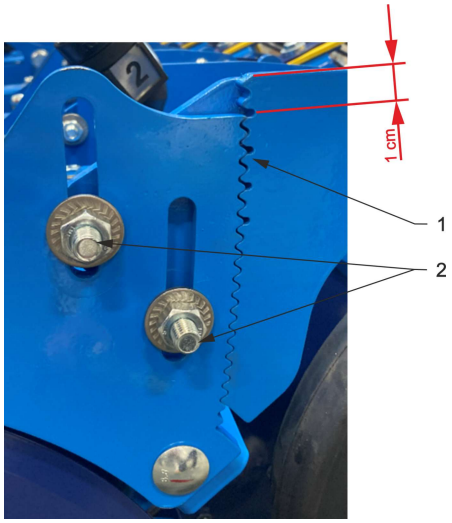
- The pressure wheels provide depth guidance when storing the seed, cover the seed with fine soil and press it against the seed.
- To sow all coulters to the same depth, it is necessary to have the wheels set in the same position.

20.3.3 Individual countersinking of the coulters

The individual countersinking of the coulters can be adjusted using a sliding comb.

Method:

- Loosen nuts (2).
- Adjustment of the countersinking with the sliding comb (1).
- Tighten the nuts .



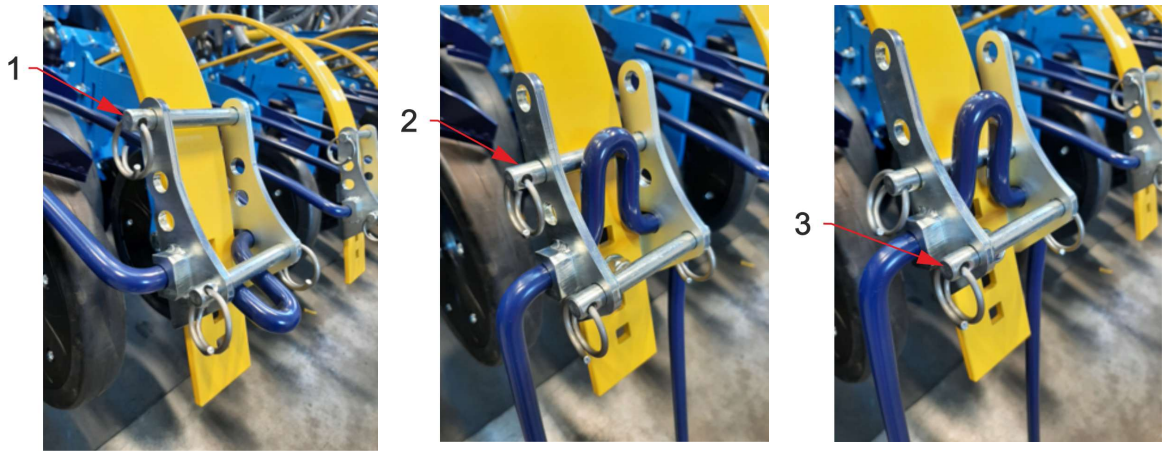
1	Sliding comb
2	Nut

Depth of sowing coulter by 1 cm.

Depth of sowing coulter by 4 cm.

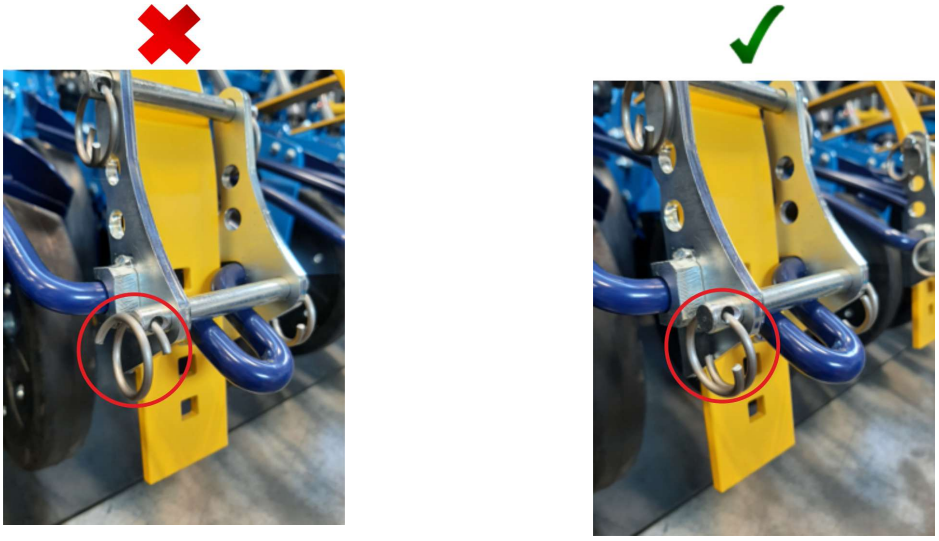
20.3.4 Harrows

- It is possible to change the aggressiveness of the harrows by adjusting the pin. With a large amount crop residues, harrows can be discarded (1).



1	Discarded harrow
2	The first degree of aggression of the harrow
3	The second degree of aggression of the harrow

The cotter pin must always be fully secured.



21 FRONT SECTION REPLACEMENT

To replace the front section, you need a **cart**, **the appropriate tools** a **a manipulator**.

- Set of wrenches size: 13, 24, 30
- Socket wrenches with the same nut size as the wrenches
- Cordless screwdriver

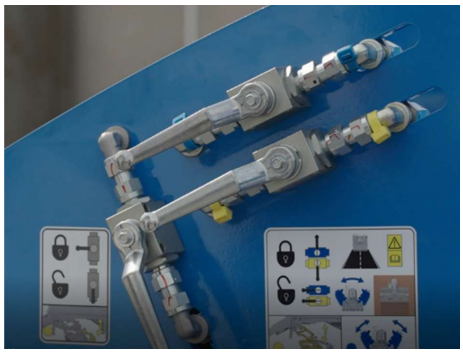
If you have purchased a cart for the machine for easy section replacement, follow the points marked by *



Working process:

1. Unfold the connected seed drill into the working position on a flat, ideally paved surface.

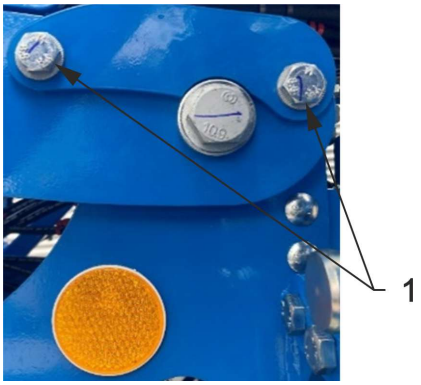
2. Open the front section ball valves -yellow circuit



3. Place the front section on the ground by operating the tractor hydraulics.
   * Place the front section on the cart by operating the tractor hydraulics.

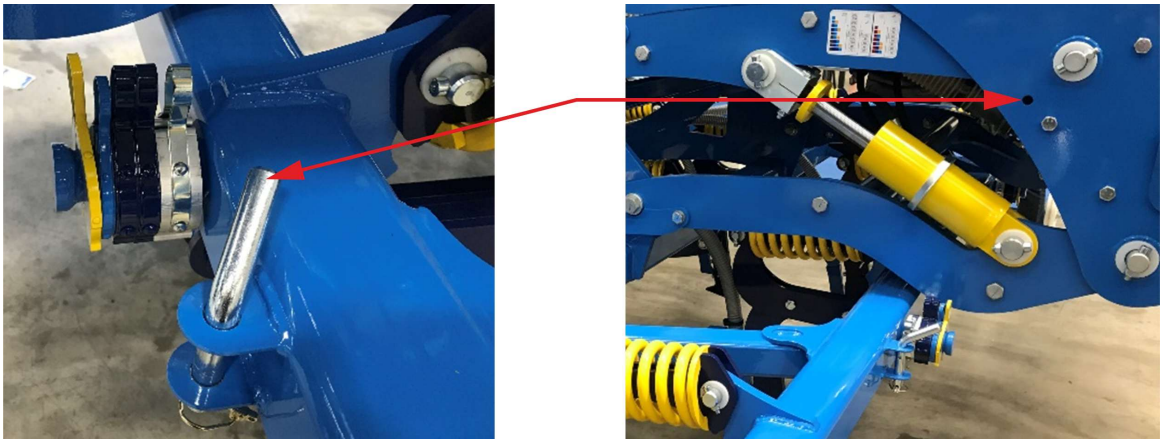
4. Remove the locking screws on the front section rods.

1 – Locking screws

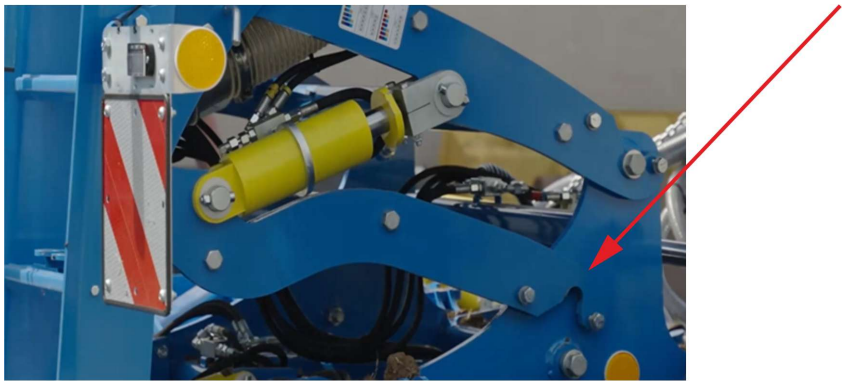


5. Remove the securing segments (4 pieces).

6. Secure the arm with the pin located on the front section – insert the pin into the hole so that the upper arm can rest on it.

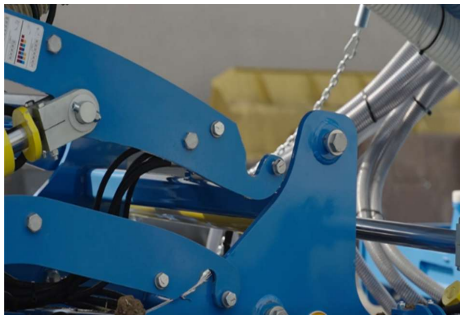


7. Raise the front section by operating the hydraulics from the tractor until the lower link is released.



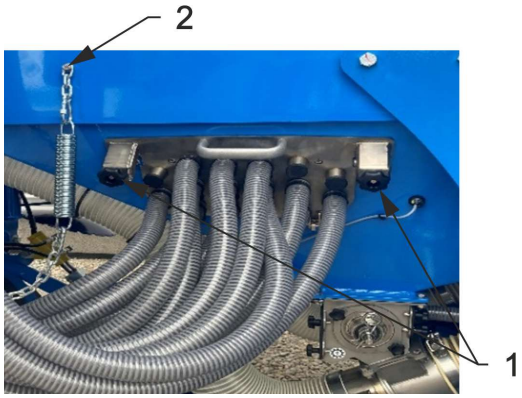
8. Secure the support leg in the working position so that the machine can be lowered.

9. Lower the entire machine by operating the tractor arms until the upper arm is released.



10. Disconnect the quick-release system of the fertilizer hoses and the hose tension chain.

1 – Lock nuts
2 – Chain



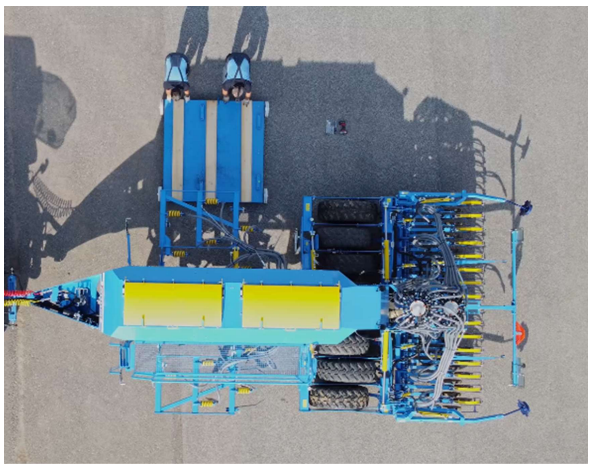
11. Disconnect the hydraulic hoses from the tractor and the bracket under the hopper (the hoses must be depressurized in order to disconnect them).

12.. Uncouple the machine from the tractor and drive the tractor.
* You leave the tractor connected.

13. Check that everything is disconnected from the front section and there is nothing to prevent the front section from being removed safety.

14. Use the manipulator to move the seeder past the front section.

* With the front section on the cart, drive away from the seeder.

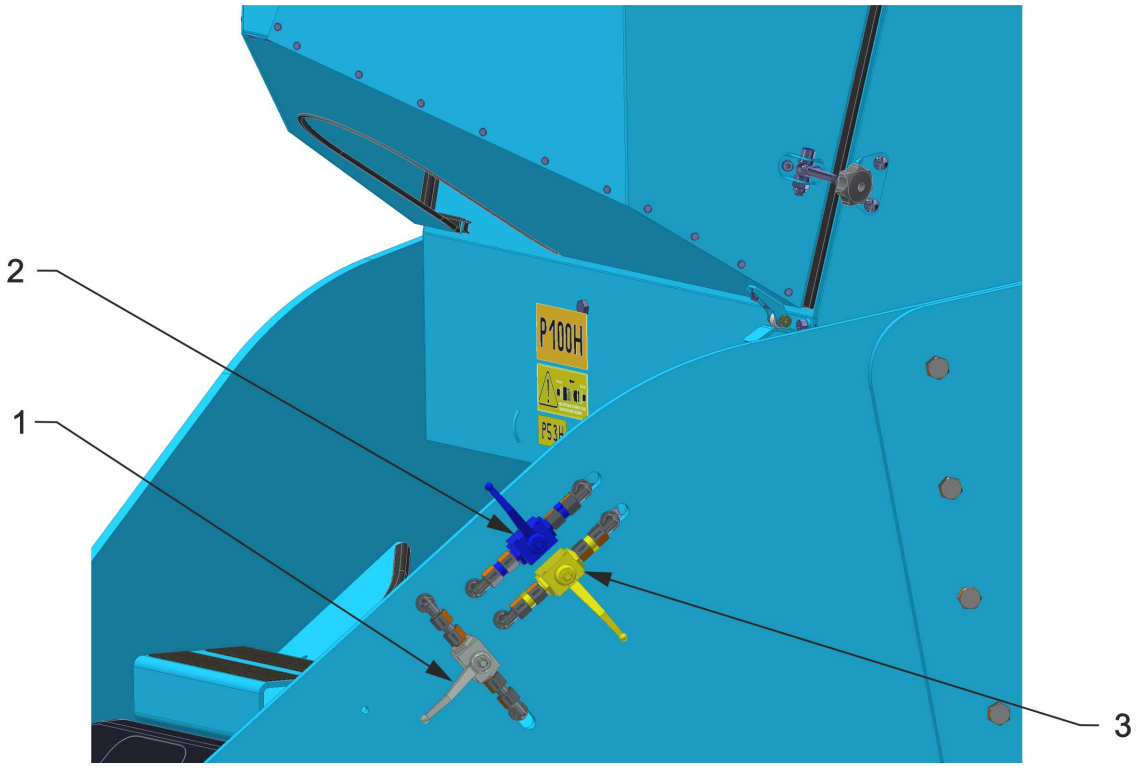


15. Remove the front section.

16. To engage the new section, repeat the procedure in reverse order.

22 FERTILIZING

- Fertilizer storage is possible in two ways:
  1. Fertilization using the preparatory section (disc, chisel)
  2. Storage of fertilizer together with seed (FERT S)
- Calibrate the fertilizer dose according to chapter **19.2**
- The piston rod of the fertilization depth can be locked with a gray ball valve (1).

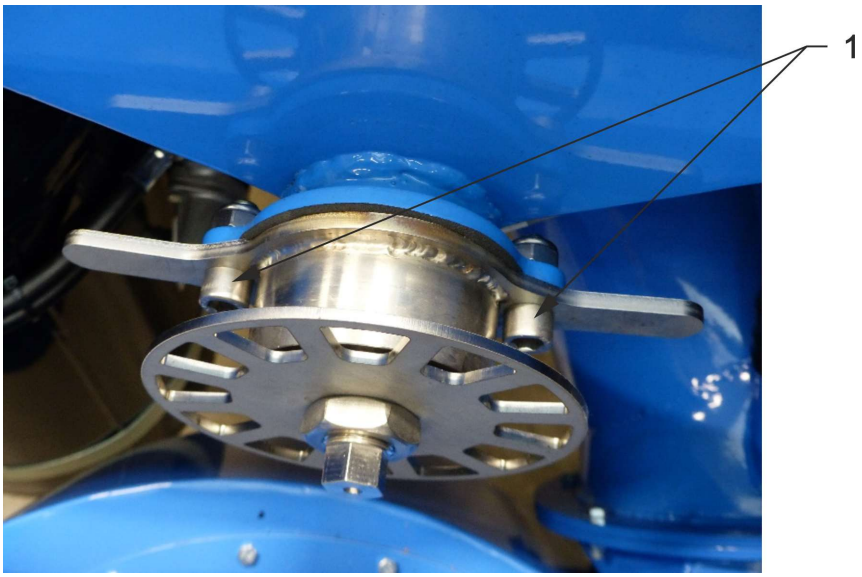


1	Ball valve for disabling fertilization (gray)
2	Ball valve for closing the tilt (blue)
3	Ball valve for disabling the front section (yellow)

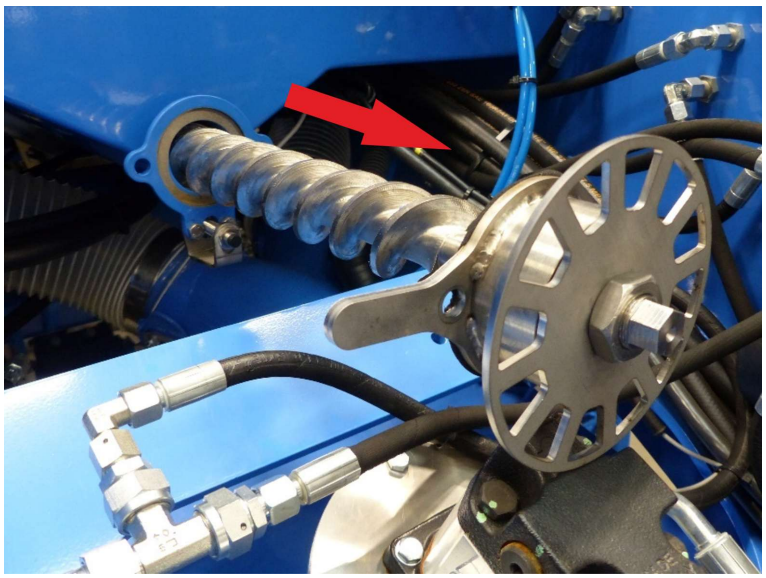
22.1 Auger metering unit of fertilization

- The auger metering unit must always rotate clockwise from the front of the machine.
- The hydraulic motor of the auger metering unit is located under the fertilizer hopper.
- For cleaning, the auger can be extended without disassembly the hydraulic motor.
- This cleaning is carried out before each shutdown of the machine or after the fertilizer application has ended.
- If maintenance is not done properly, the fertilizer inside the auger feeder may harden.

1. Loosen and remove the screws of the auger metering unit (1)



2. Slide out the auger metering unit



3. Clean the dispenser and the dispenser auger
4. Insert the auger and tighten the screws

22.1.1 Hydraforce fertilizer engine valve

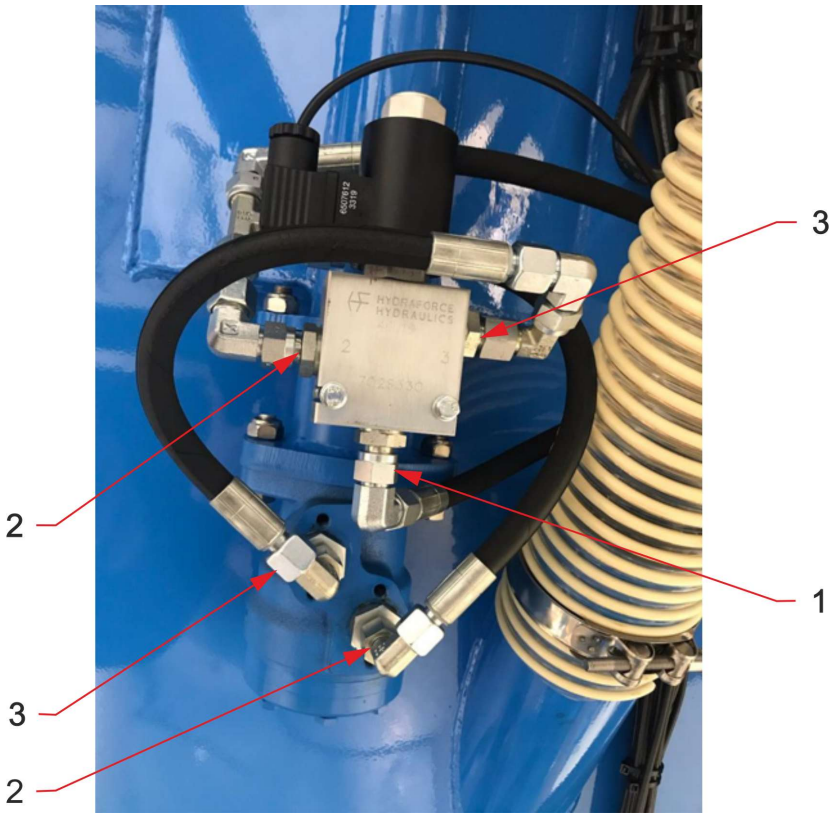
- Provides speed control of the screw feeder.
- To prevent the oil from overheating, it is important to have the oil flow to the fertilizer circuit set correctly.

Flow setting to the fertilization circuit:

1. Increase the oil flow until the required dose is reached at maximum speed.

2. Increase the flow value by a reserve 2 %.

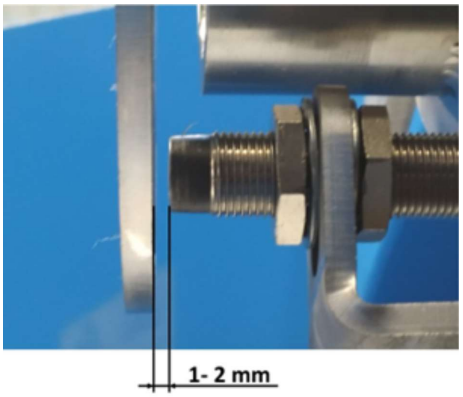
- The flow is in the range of 10-20%, depending on the tractor pump.



1	Input branch
2	Non-pressure return
3	Regulated branch

22.1.2 Hydraulic dispenser speed sensor

- The sensor is located at the dosing sprocket on the front of the machine hopper.

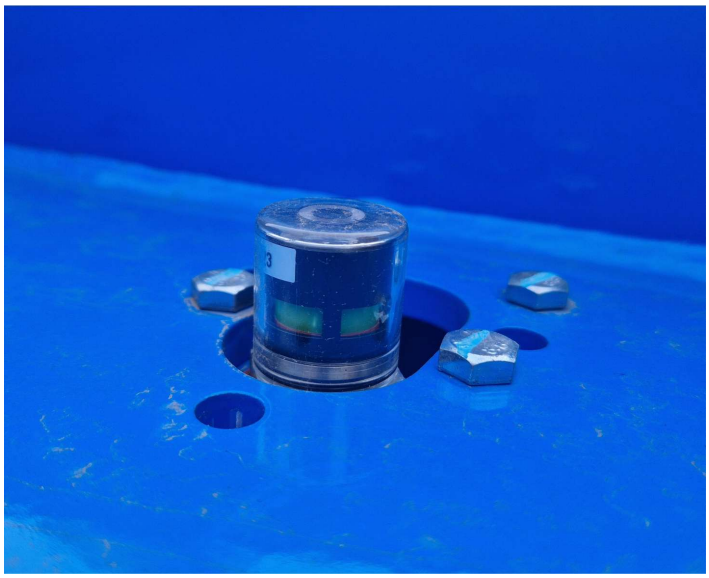


22.1.3 Oil filter for fertilizing hydraulic circuit

- The oil filter has a dirt indicator.
- If the indicator is red, the filter element must be replaced.

Filter cartridge replacement:

1. There is a hexagon on the bottom of the filter to remove the insert.
2. The filter insert is marked **m21229**.

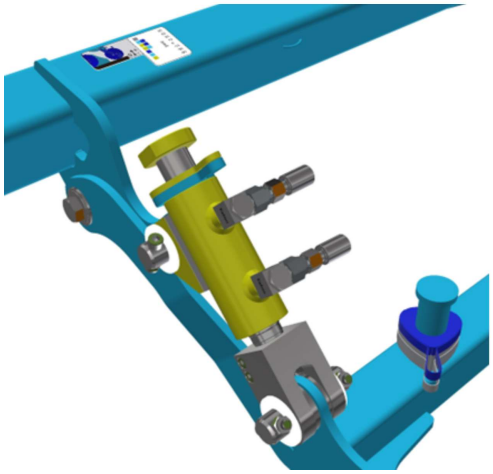


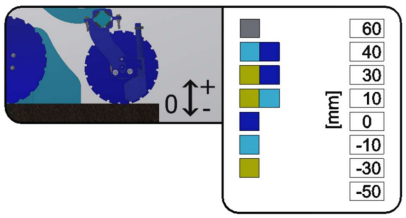
22.2 Roller dispenser

The roller fertilizer metering unit is used in the same way as for seed, see chapter 18

22.3 Disc fertilization

- The depth of the fertilizing discs is set by placing the clips on the piston rod, according to the table.

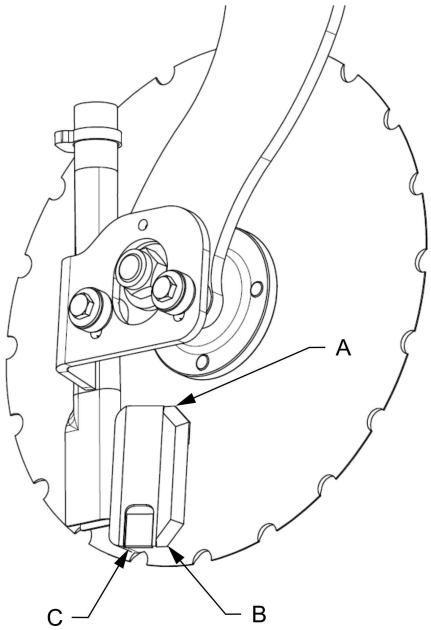




The depth setting of the fertilizer desc section depends on the depth of the front preparation section.
If the piston fertilizer is set to 0, the fertilizer depth is the same as the depth of the preparation section.

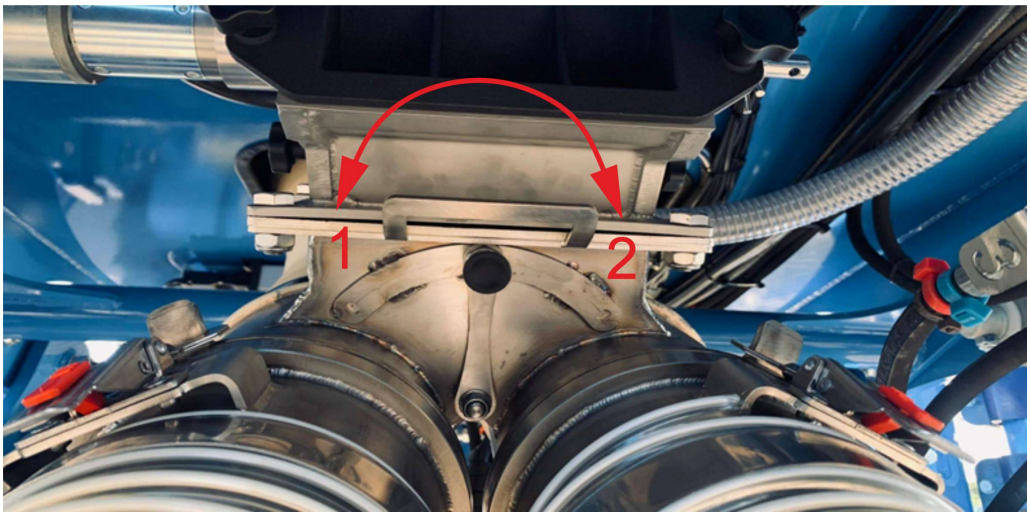
Adjusting the fertiliser unit:
Gaps between blade and disc:
A > 0 mm
B = 0 mm
C > 0 mm

The cleaning blade must be adjusted so that it touches the disc at **point B** around its entire circumference.
The disc must be able to be turned freely by hand.



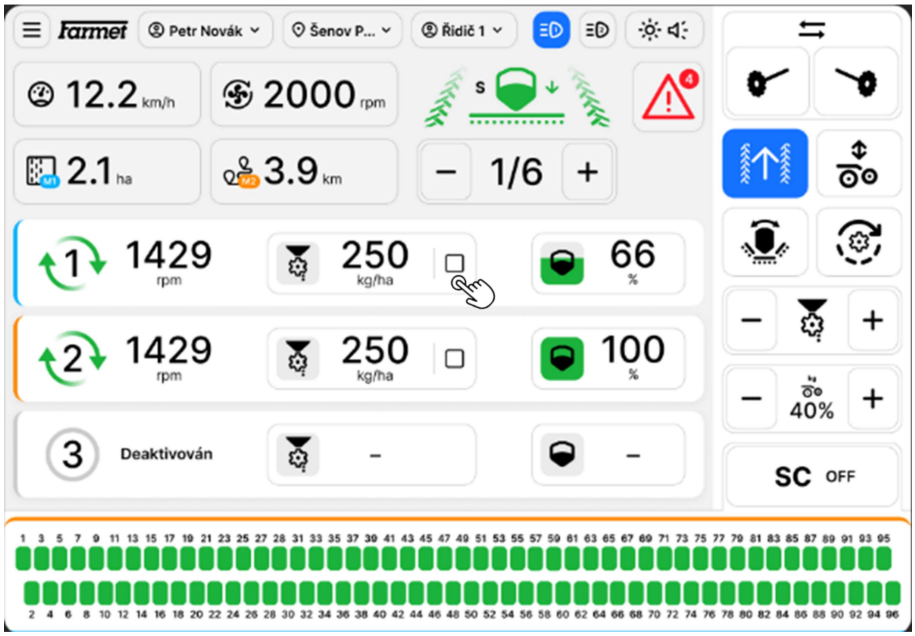
22.4 Storing fertilizer together with seed (Fert S)

The Ferts S system allows the seed and fertilizer to be stored together at the same time. The seed and fertilizer are replaced in the seed furrow. The fertilizer is fed into the distributor head together with the seed. Using the mixer flap (see picture below) it is possible to set the fertilizer dosing into both chimneys (middle position) or to select position 1 or 2 of fertilizer dosing only into the first or second chimney.



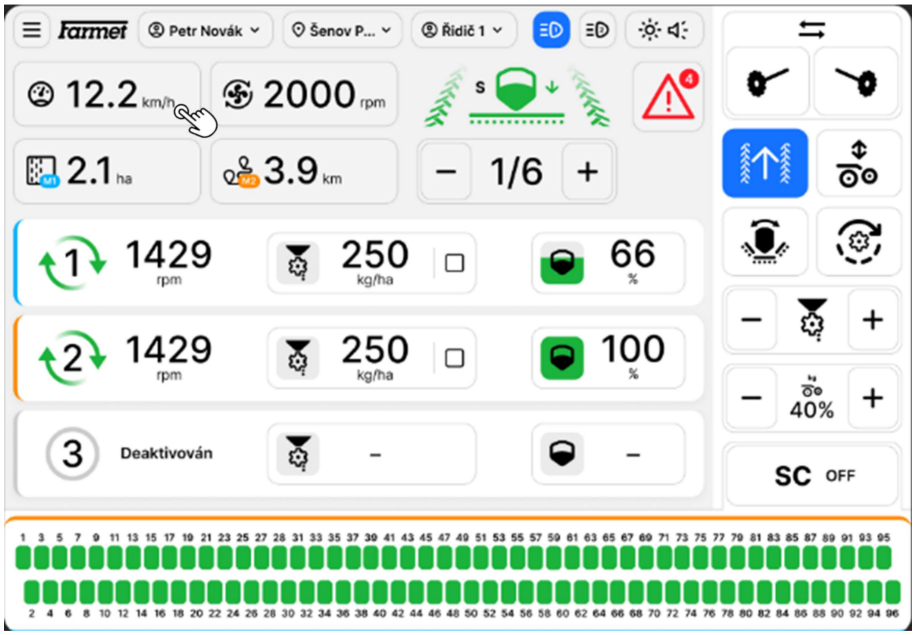
23 ADJUSTING THE DOSE DURING WORK

This function is used to adjust the target amount (100%) to an amount in the range of +/- 100%, if the motor allows it within this range.

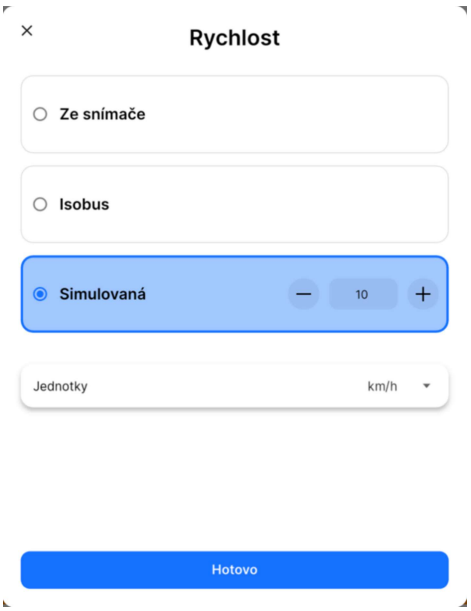


Functional icon	Meaning
	Increases the target amount for selected dispensers. The target value is increased by a defined value.
	Defining the maximum amount change value and the amount change range.
	Decreases / increases the target amount.

24 MACHINE SPEED SOURCE AND MEASUREMENT UNIT CHANGE

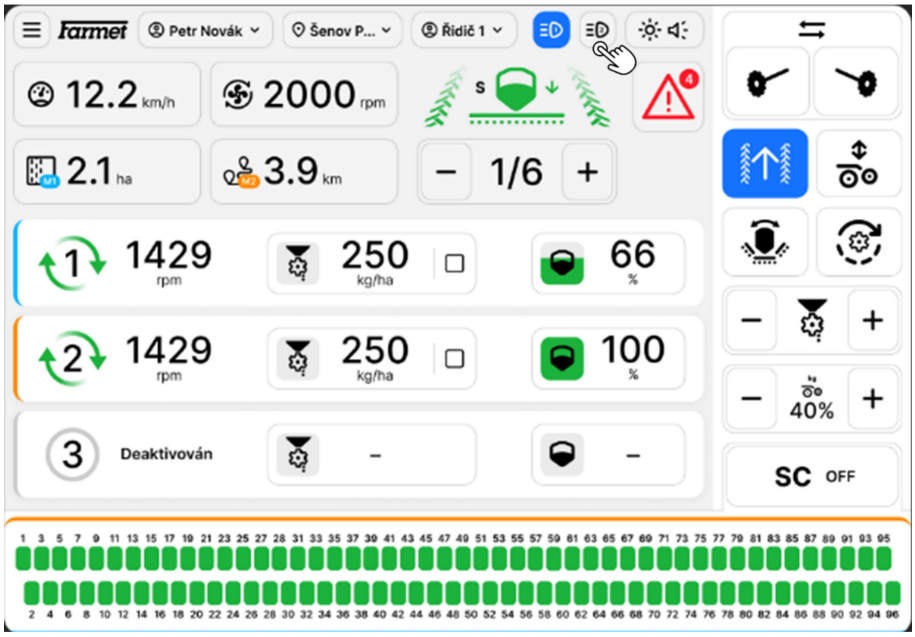


- By pressing the working speed button, you can select the working speed source, set the simulated speed, and change the measurement units.
- All Falcon seed drills are equipped with a speed sensor, so we recommend selecting the "From sensor" signal“ .

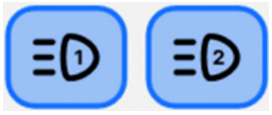


Simulated speed is mainly used for service purposes. When simulated speed is active, the operator is notified by the "SIMULATED" label next to the speed value.

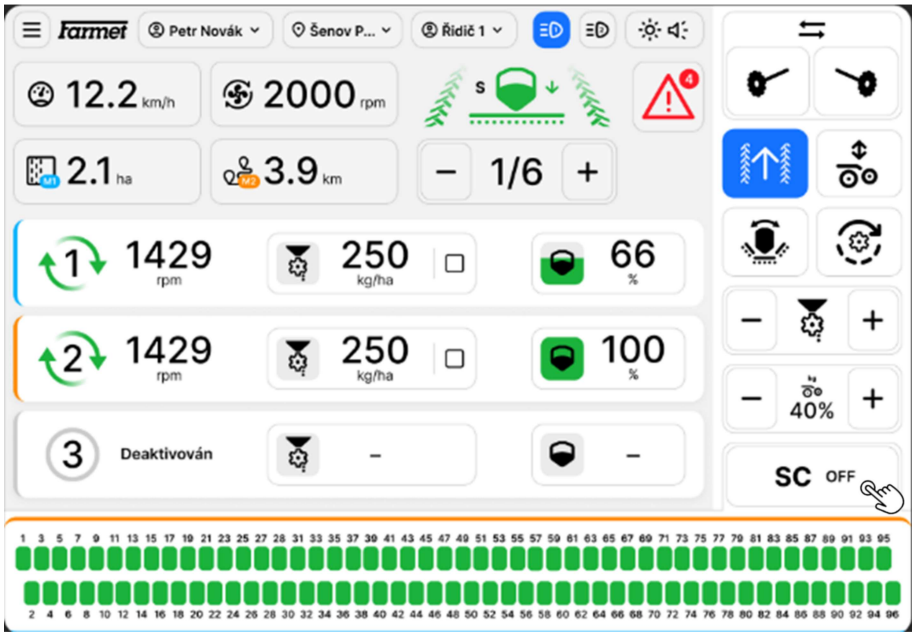
25 MACHINE LIGHTING



- The machine lighting controls are located at the top of the working screen.

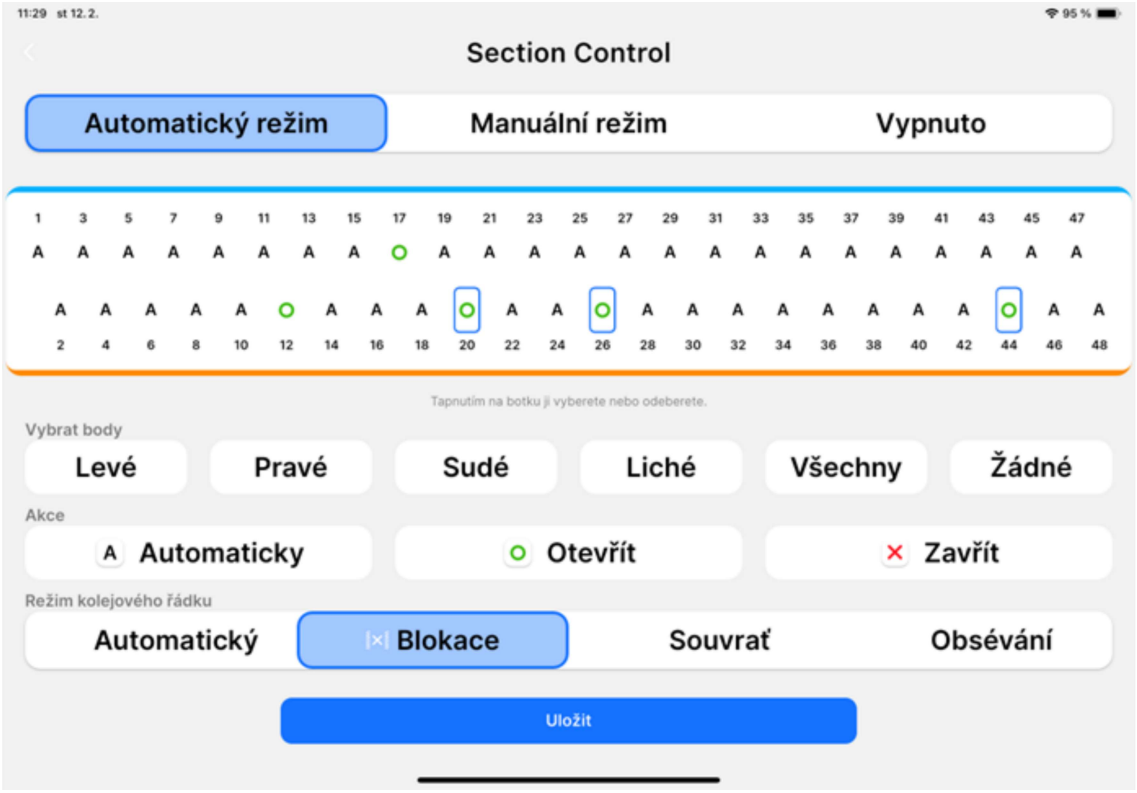
	Inactive work lights and hopper lights.
	Active work lights and hopper lights.

26 CONTROLLING SECTION (SECTION CONTROL)



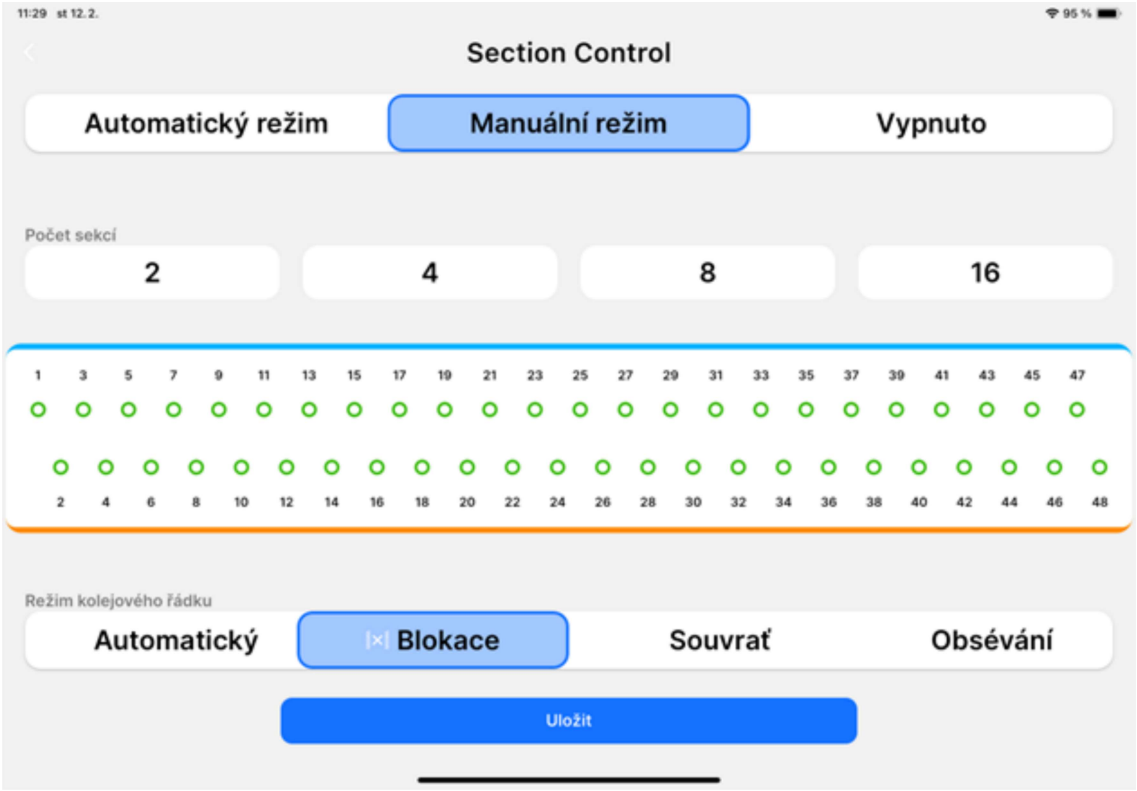
- The Section Control function is active in selected configurations, and the machine hardware must be adapted for it.
- The machine can be retrofitted with this function.
- The SC function can be activated in the lower right part of the screen.
- Changes in SC settings take place in real time, immediately after entering the request.
- This function can significantly save seeds during seeding.

Automatic Mode

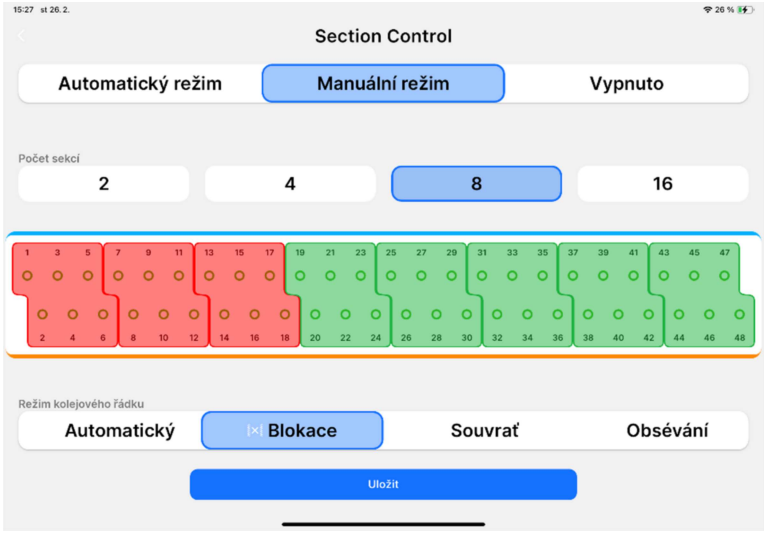


- For the automatic section control function, the "Automatic" mode must be active“
- In this mode, any flap can be selected and closed or opened. For quick selection, you can press "Left, Right, Even," etc.

Manual Mode

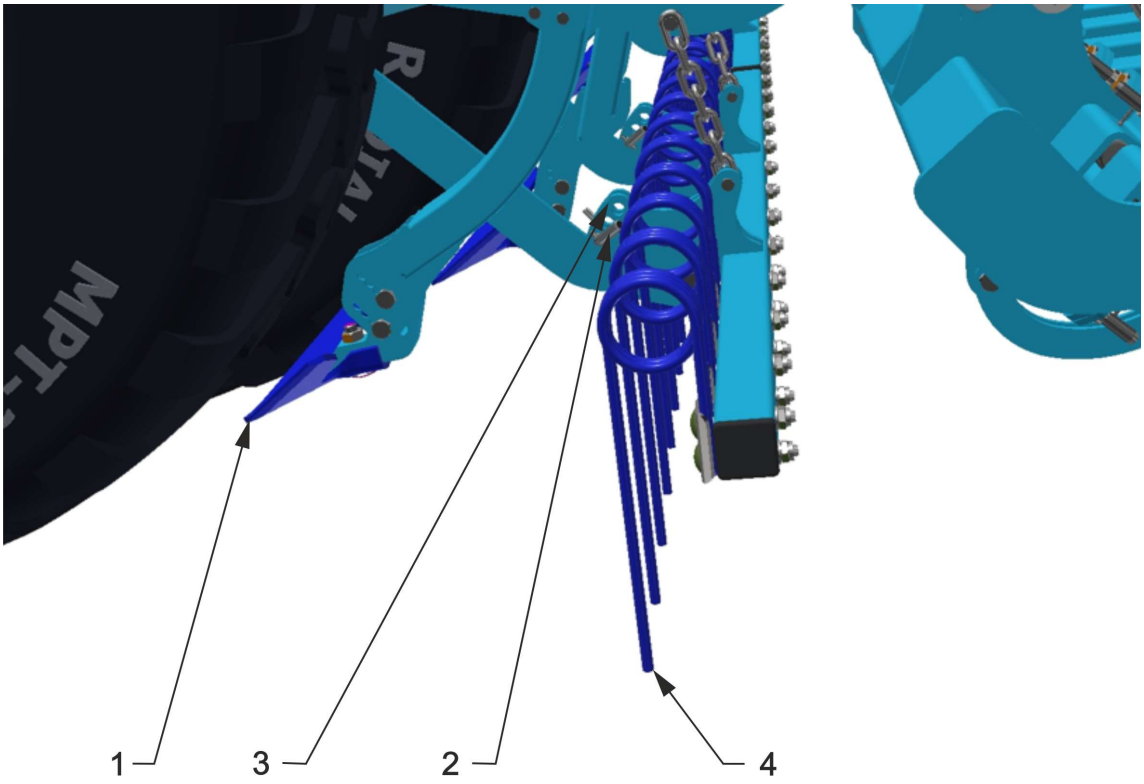


- In manual mode, sections can be divided according to a pre-set number of sections 2, 4, 6, etc. These sections can then be manually turned off or on on the main screen.
- This function can be used, for example, when the tractor does not have a precise RTK signal and thus control selected sections manually.



27 ADJUSTING THE HARROW BEHIND THE ROLLER

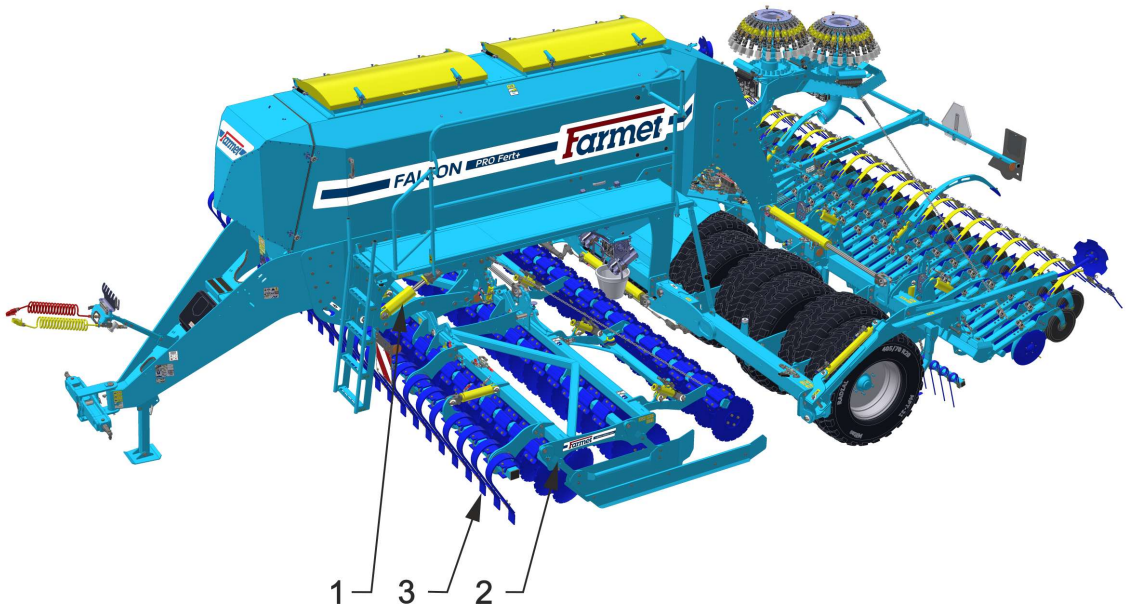
- Used to spread plant residues in front of the seed coulter.
- For aggression, its aggressiveness can be set.
- The aggressiveness is set using the pin (2), which is adjusted in the holes of the adjusting link (3). It there is a few post-harvested residues in the field, this harrow is set to a steep position, on the contrary, if there are many post-harvested residues in the field such as sowing corn the harrow must be placed to prevent clogging.
- The cultivator only works with its weight and its automatically raised together with the coulters.



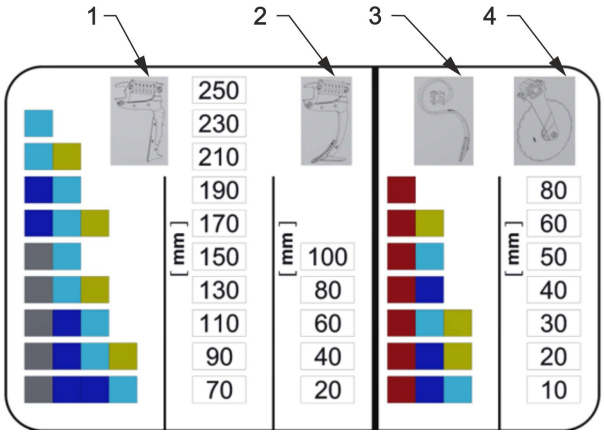
1	Wheel scraper
2	Harrow tilt adjustment pin
3	Setting backdrop for changing aggression
4	Harrowing pen

28 ADJUSTING THE DEPTH OF THE FRONT PREPARATION SECTION

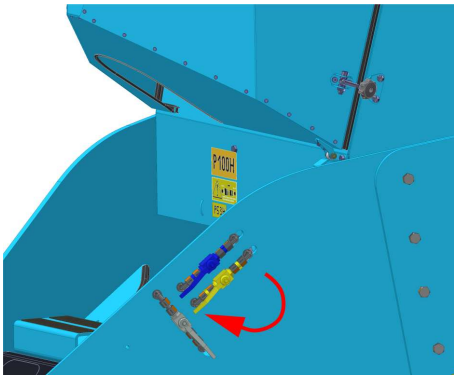
- The front preparation sections are controlled with help and an open ball valve.



1	Piston rod for section depth adjustment
2	Front preparation section (disc)
3	Flexi board section



1	Settings for the three-row chisel section
2	Settings for the coulter section
3	Settings for the three-row chisel section
4	Settings for a double-row disc section



The red clip at the disc section must never be removed. The section is not dimensioned to a depth of more than 80mm and there is a risk of damage!

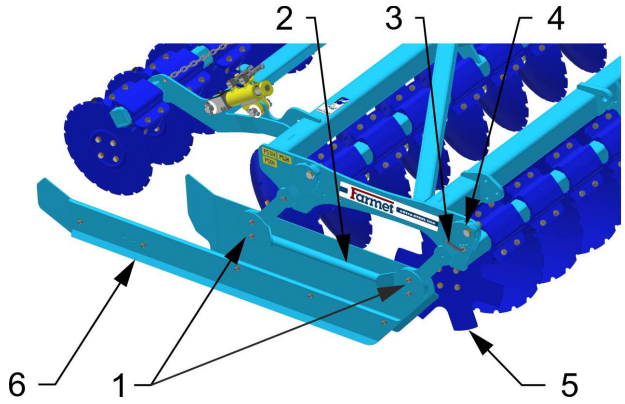
The working depth of the machine must be set so that the spring protection of the working tools (tines) does not unlock frequently. The spring protection should only release very sporadically. Unlocking can occur on a maximum of one working tool (tine) on the entire machine after a 100 - 200 m drive. If unlocking is more frequent, it is necessary to reduce the working depth. Due to the frequent release of the spring protection, excessive wear of the pins and other parts of the spring protection can occur. In this case, their more frequent replacement is necessary.

28.1 Side deflectors of the front preparation section

- Side deflectors prevent the soil from being ejected through the working width of the machine and level the soil wall created by the external discs.

Settings

- The settings must be adapted to the soil conditions.
- No ramparts or furrows may be created between rides.



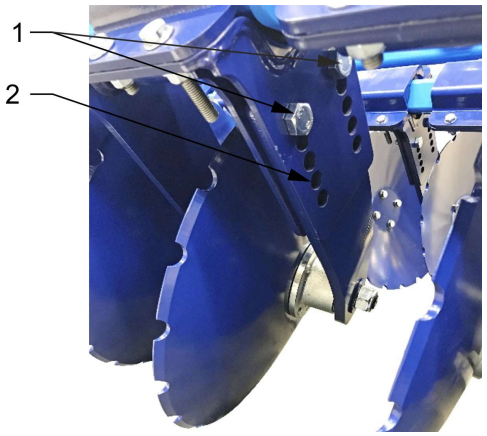
1	Possibility of adjustment in the horizontal direction
2	Deflector handle
3	Deflector depth adjustment pin
4	Backdrop for deflector depth adjustment
5	Star disc
6	Deflector

28.2 Tractor track cultivators

All Falcon machines with a disc pre-processing section are equipped with tractor track cultivator to loosen the tractor tracks.

Depth setting of cultivators:

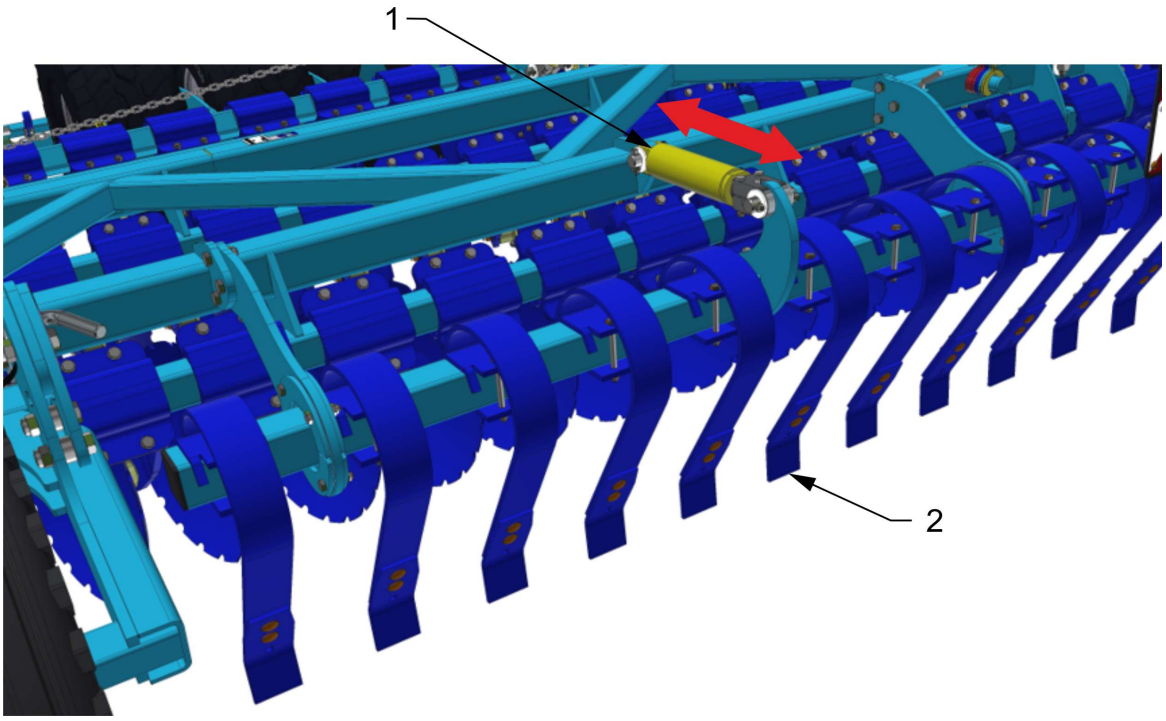
- Loosen the screws (1)
- Adjust the depth of the cultivators using the holes (2)
- Tighten the screws (1)



1	Screws
2	Holes for setting the loosening depth

28.3 Flexiboard

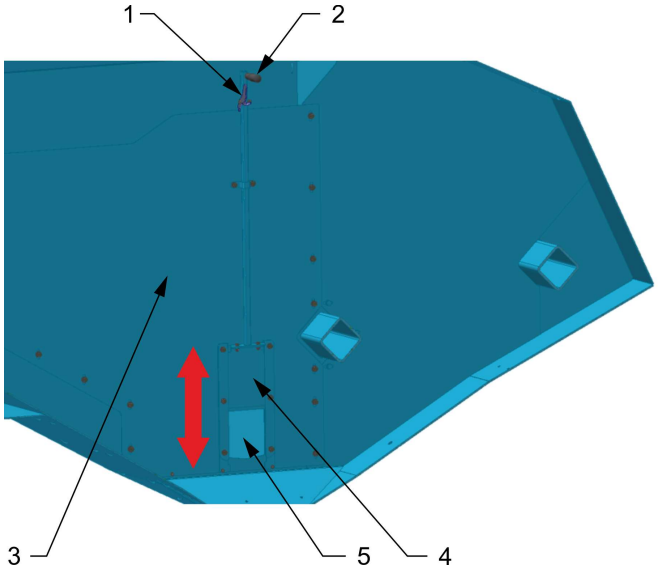
- Flexi boards are controlled with help
- It is used to level plowed soils and a lot of lumpy terrain.
- Before the first use, it is always necessary to pressurize the flexi board to the end position to ensure the uniformity of all its sections.
- It is possible to change its depth directly from the tractor cab according to the current conditions.
- The use of a flexi board is not recommended when sowing in mulch.



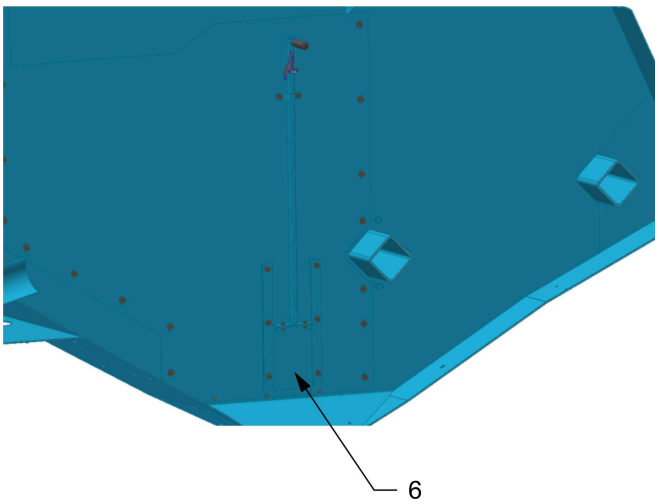
1	Flexi board piston rod	2	Flexi board working body

29 TRAY PARTITION

- Possibility of dividing the hopper into two separate halves, for sowing two crops or simple connection of both halves of the hopper into one large one, for sowing one crop.



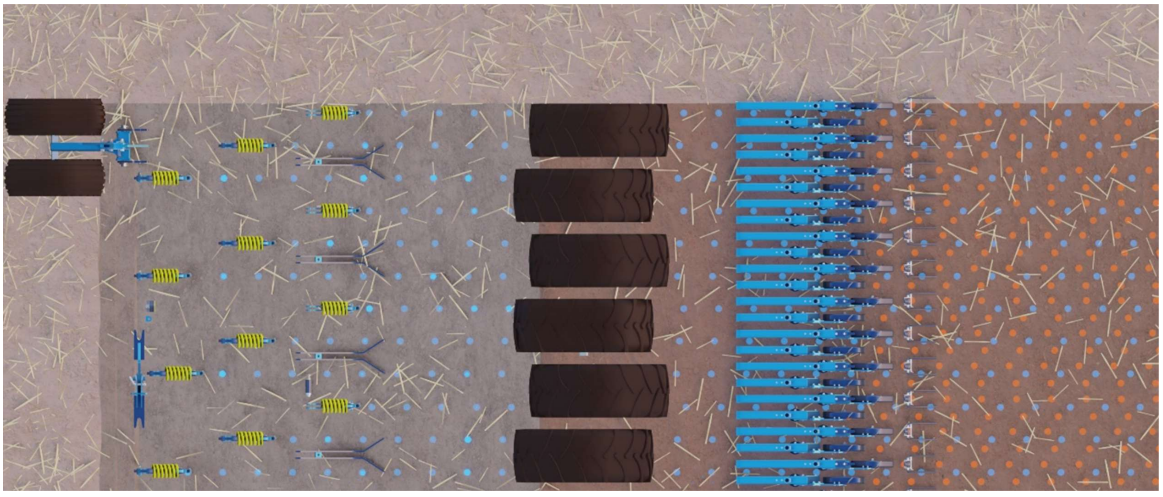
1	Locking lever
2	Handrail
3	Partition
4	Partition gate
5	Open state (tray is connected)
6	Closed condition (tray is divided)

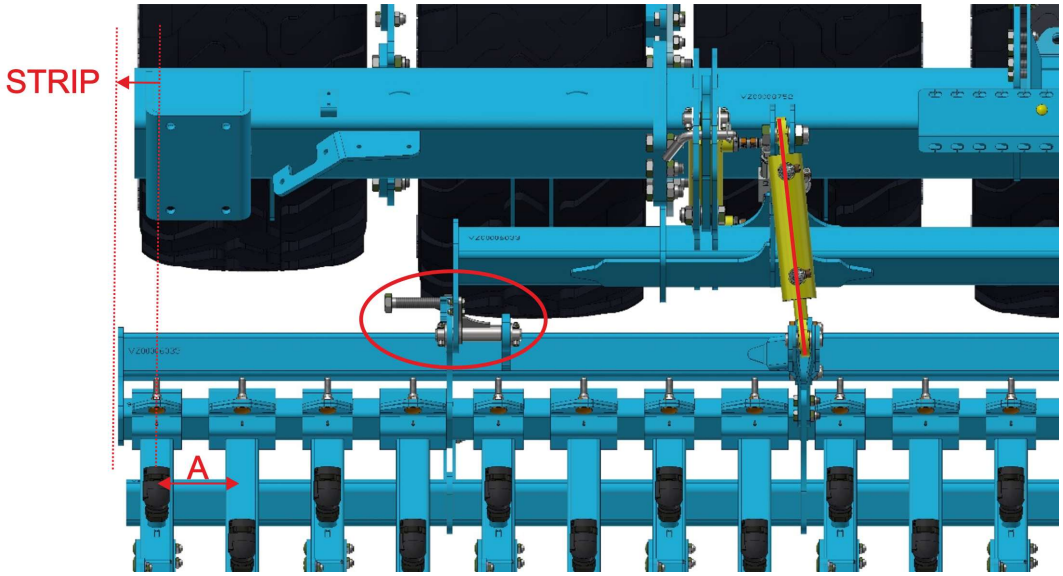


30 SOWING SECTION SHIFT

- Possibility of moving the seed coulters to the same spacing as the fertilizer section (sowing with every other seed coulter, the seed is stored in the same line as the fertilizer section).

1. Sowing STANDARD, fertilization in the interline.

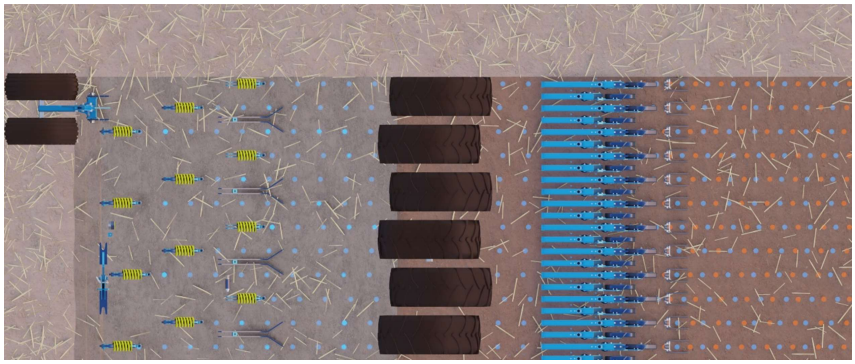


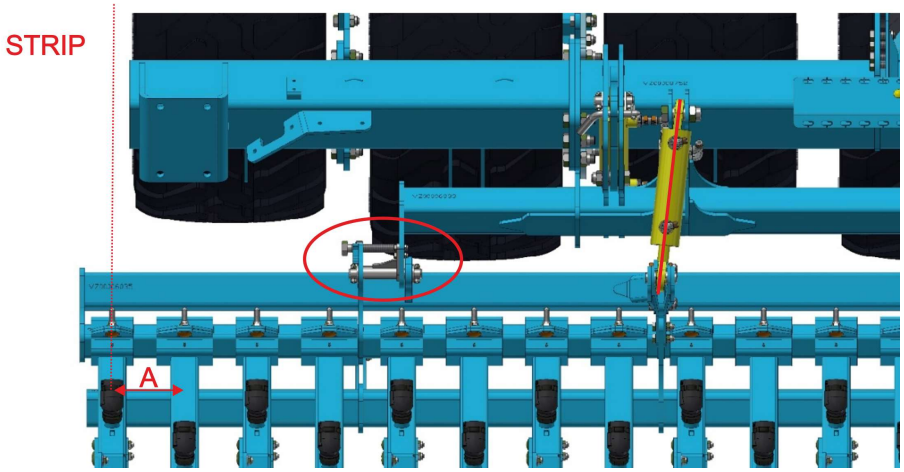


- To readjust the sowing section to STRIP technology, it is necessary to move the sowing section by half the spacing of the seed coulters **A**. This is done using the adjusting screw.
- For the coulter spacing 125 the sowing section is shifted by 62.5 mm, for the 150 mm spacing is by 75 mm. The locking segments are used for this.

IT IS NOT NECESSARY TO ADJUST THE MARKERS OR GPS.

2. Sowing STRIP, fertilizing in a row.





How to change to STRIP:

1. We release and remove the locking segment from the whole section.

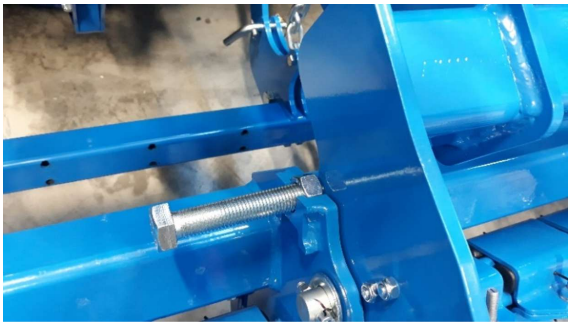
2. All section displacement pins must be lubricated.

3. Insert the screw for moving the section (accessory).

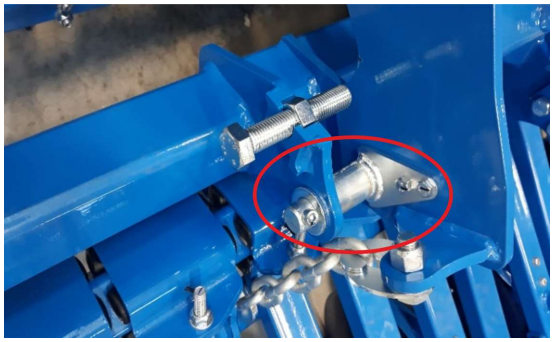
4. From the left side, we will gradually start moving the section.

5. Refit the locking segment.

TECHNOLOGY STANDARD



TECHNOLOGY STRIP



31 BRAKES

- The machine can be equipped with a pneumatic brake system.
- After parking, the machine must be braked with the parking brake.
- Uncontrolled spontaneous movement of the machine can cause serious injuries or death.
- Park the machine only on level ground with sufficient capacity.

Brake connection

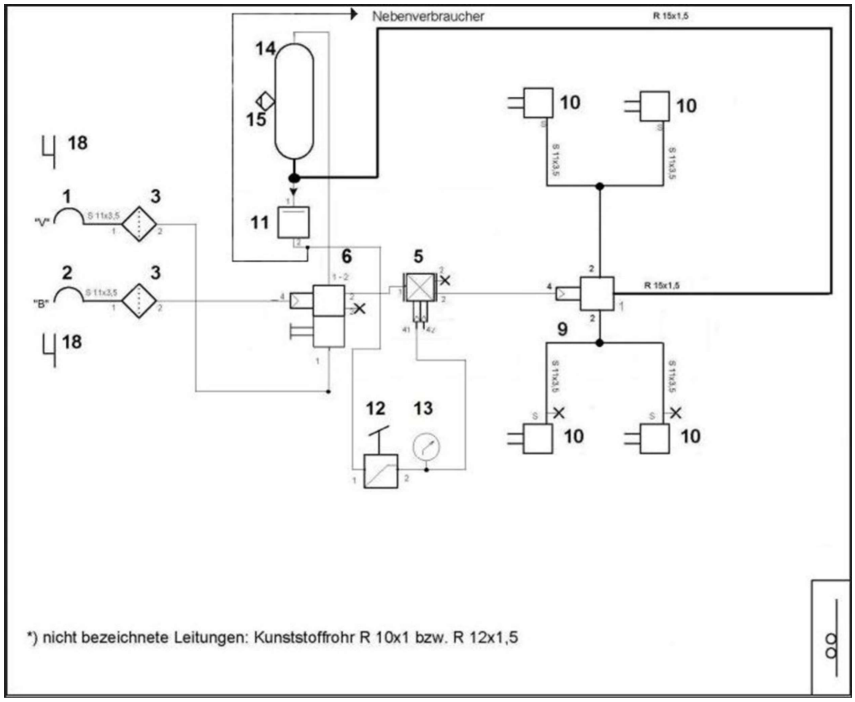
1. Connect the control connection head (yellow).
2. Connect the filling connection head (red).
3. Release the parking brake.

Disconnect brakes

1. Secure with the parking brake.
2. Disconnect the filler connection head (red).
3. Disconnect the control connection head (yellow).

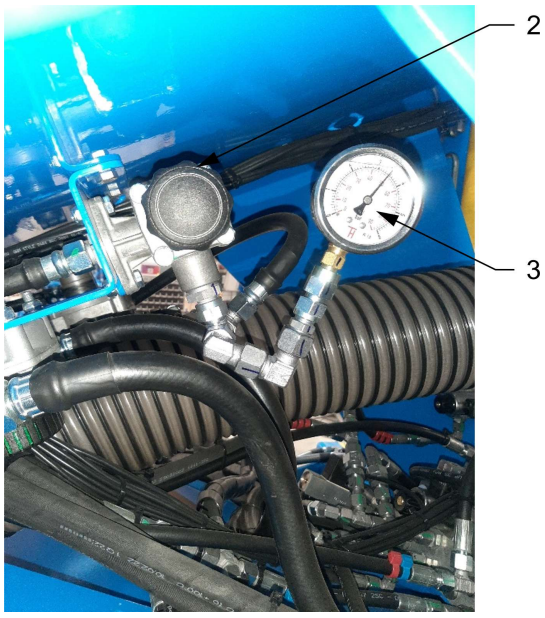
31.1 Air brake

- The air brake is designed as a double-hose brake with a pressure regulator.



The pressure reducing valve is installed above the rear axle together with the information label containing the correct brake system pressure settings. The setting depends on the axle load stated, for example, on the machine plate

When replacing the preparatory section, check the axle load and set the pressure in the brake system correctly according to the information label.



1	Information label	3	Set value
2	Pressure reducing valve		

31.2 Parking brake

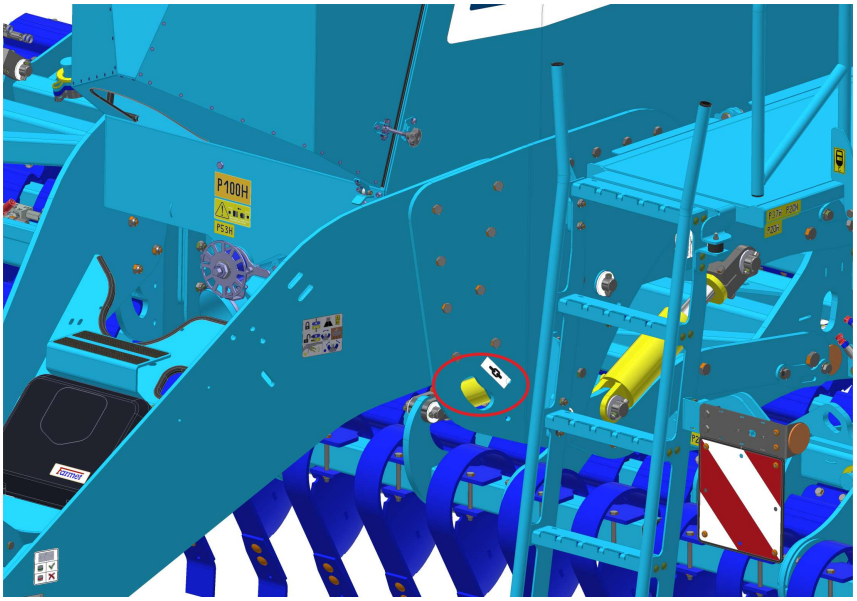
- Uncontrolled spontaneous movement of the machine can cause serious injuries or death.
- Park the machine only on level ground with sufficient capacity.

- Before uncoupling, always apply the parking brake and secure the machine against unintentional rolling.
- Always release the parking brake before transport.
- Check the function of the parking brake when attaching the machine.

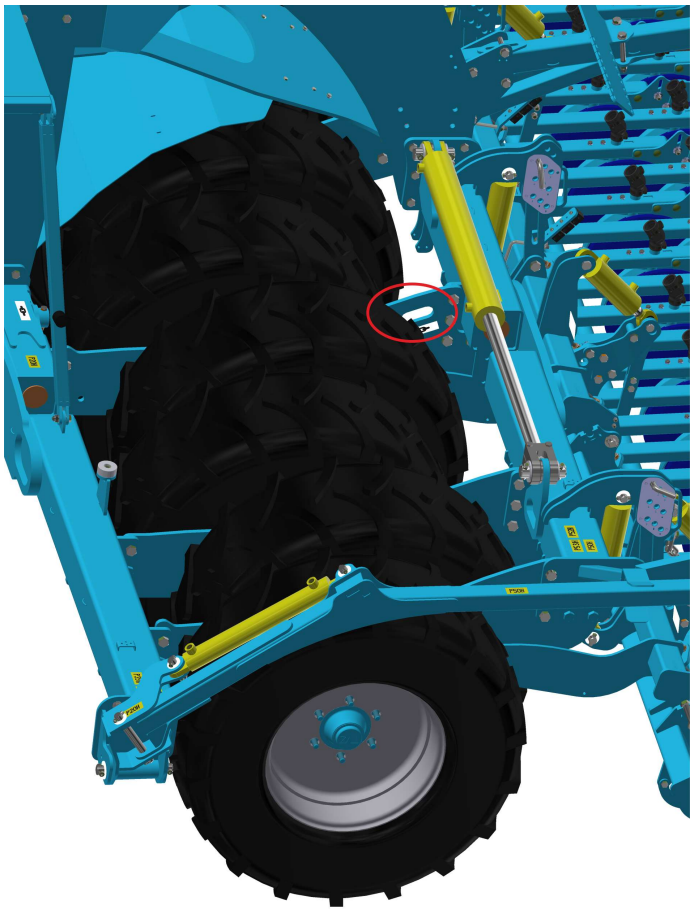
32 HANGING THE MACHINE ON A CRANE

- For hanging it necessary to use fabric or rubber harnesses with sufficient load capacity. There is a risk of damaging the machine when using the chain.

Suspension point on the drawbar



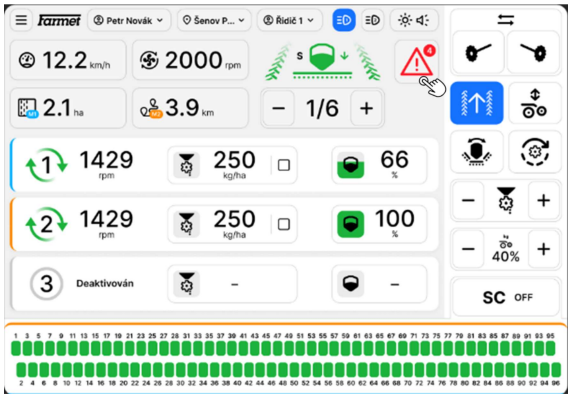
Suspension point on the rear frame



33 ERROR MESSAGES

- The alarm message icon is located in the upper right part of the screen.

- Alarm messages are divided into 4 levels, where level 1 is superior to levels 2, 3, 4 and will always be displayed in the first place.



Reducing the volume may result in alarm notifications not being heard sufficiently.

34 MACHINE MAINTENANCE AND REPAIRS

- Repairs to the machine may only be carried out by a trained person. When leaving the tractor cab, the operator must switch off all hydraulic circuits, appliances on the machine (fan) and the engine, the operator must prevent unauthorized access to the tractor.
- Worn discs are only replaced when the machine is at a standstill (means the machine is stationary and not working).
- If it is necessary to weld during repairs and have the machine connected to the tractor, the supply cables must be disconnected from the alternator and battery.
- Check the tightening of all screw and other mounting connections on the machine before each using of the machine.
- Continuously check the working parts of the machine for wear or replace these worn working parts with new ones.
- Adjustment, cleaning and lubrication of the machine may only be performed when the machine is at standstill (means the machine is stationary and not running).
- When working on the raised machine, use a suitable support device supported in suitable places.
- When adjusting, cleaning, maintaining and repairing the machine, you must secure those parts of the machine that could endanger the operator by falling or other movement.
- Repairs to the hydraulic circuits may only be carried out disassembled and the machine must be laid on the ground by the working units.
- When repairing the hydraulic circuits of the machine, it is first necessary to depressurize the hydraulic circuits of the machine.
- Use only the areas marked with self-adhesive labels with a chain symbol to catch the machine when handling with a lifting device „ ".
- In the event of a fault or damage to the machine, switch off the tractor engine immediately and secure the engine against restarting, secure the machine against movement — only then you can remove the fault.
- Only use original spare parts, suitable tools and protective equipment when repairing the machine.
- Regularly check the prescribed tire pressure of the machine and the condition of the tires. Carry out any tire repairs in a specialist workshop.
- Keep the machine clean.
- Regularly check the tightening of the nuts of the working parts.

- **Do not clean hydraulic cylinders (piston rods), bearing and electronic parts with a high-pressure cleaner or a direct stream of water. Seals and bearing are not waterproof at high pressure.**

34.1 Maintenance plan

Maintenance plan					
Maintenance operation	Daily (season)	40 h	Before the season	After the season	Time interval
Generally a machine					
• Visual inspection of the machine • Monitoring of unwanted sounds, vibrations and excessive wear.	X				
• Inspection of key nodes: pins, bearings, cylinders, working bodies	X			X	
• Cleaning the machine • Storage of the machine ideally under the roof • Record machine raid / season (ha)		X		X	
• Complex visitation • Frame inspection	X			X	
	Do not clean hydraulic cylinders, bearings, electrical and electronic parts with a high-pressure cleaner or a direct stream of water. Seals and bearings are not waterproof at high pressure.				
Hydraulic system					
Check the function, tightness, fastening and abrasions of all hydraulic components and hoses		X	X		
Hydraulic hoses – replacement: • Damage hose outer casing (mechanically or swollen) • Fluid leakage (especially at the tip) • Bumps or blisters on the hose • Deformed or corroded terminal • Loose end – the hose rotates	X			X	
Hydraulic hose– replacement: • Hose life exceeded 					6 years
!!! PREVENTION means to eliminate the problem planned, out of season without stress and comfortable before a secondary problem, accident or health threat arises.					

Maintenance plan					
Maintenance operation	Daily (season)	40 h	Before the season	After the season	Time interval
Screw connections					
Visual inspection of screw and hydraulic connections, tighten loose connections with the appropriate tightening torque (table of tightening torques)	X			X	
Wheels – Tighten all wheel nuts • For the first time after 10 hours of operation • After changing the wheel after 10 hours of operation M 18 x 1,5 – 300 Nm M 20 x 1,5 – 400 Nm M 22 x 1,5 – 500 Nm		X	X		
Brake system					
Brake lines and hoses - check function, tightness, fastening and clamping or breakage	X		X		
Brake components - check function, tightness, fastening	X		X		
Aerator – drainage by drain valve		X			
Drain valve – verification of functionality, cleaning and replacement of seals				X	
Pipe filter - cleaning				X	
Brake/parking brake – functional check, step adjustment**25-45mm**	X		X		
Brake lining – check the condition of the brake lining, min. thickness 3 mm			X		
Wheels / axle					
Tire pressure check	X		X	X	
Transport axle bearings – check and possible adjustment of play (work in the workshop)				X	

Maintenance plan					
Maintenance operation	Daily (season)	40 h	Before the season	After the season	Time interval
Pneumatic system					
Fan: Speed setting function	X		X		
PTO fan – check oil level		X	X		
PTO oil change The first after 50 operating hours The second after 200 operating hours Others after 400 hours					1 year
Fan protection grille: Condition check, dirt removal	X				
Oil cooler		X			
Fan impeller Condition check and fastening, dirt removal Check the fan drive mounting		X			
Fan, seeding hose, mixer: Tightness, clamping points, clogging, general condition	X			X	
Hydraulic couplings and hoses: Tightness of all components and permeability	X				
Distributor: Foreign matter control. Unscrew the distributor cover and check the outlets Check the function and position of the tramline flaps	X				
Sowing device (dispenser)					
Checking the overall condition, adjustment, wear, tightness			X		
Checking for the presence of foreign bodies	X				
Check the condition of the drive, motor bearings		X			
Check the tightness of the plate on the roller			X		

!!! PREVENTION means to eliminate the problem planned, out of season without stress and comfortably before a secondary problem, accident or health threat arises.

Maintenance plan					
Maintenance operation	Daily (season)	40 h	Before the season	After the season	Time interval
Damage check, possible replacement		X	X		
Safety device					
Lighting and safety hatched boards – check condition, functionality and cleanliness	X		X		
Warning and safety labels – presence and legibility check		X			
Lubrication schedule of the machine					
Drawbar joint / suspension eye - grease	X			X	
Parking brake bolt – grease or suitable oil	X			X	
Axle bearings – grease containing LITHIUM – inspection, possible filling				X	
After season					
The whole machine Perform treatment and cleansing; do not spray plastic parts with oil or similar means Spray the piston rods of the hydraulic cylinders with suitable anti-corrosion agents Check the strength of all screw and plug-in connections (see table of tightening torques) Check electrical wiring for damage and replace if necessary					
Brake system Before the last ride, preserve with antifreeze (approx. 0,1l) without ethanol, use the one recommended by the tractor manufacturer Secure the machine against movement with wheel chocks Release the parking brake, bleed the air and close the brake lines The service and parking brakes must be released during the winter to prevent them from sticking to the brake drum					
Lubrication points Lubricate the lubrication points according to the lubrication schedule, with KP2P-20 Likx grease according to DIN 51 502					
!!! PREVENTION means to eliminate the problem planned, out of season without stress and comfortably before a secondary problem, accident or health threat arises.					

34.1.1 Lubricant handling

- Treat lubricants and oils as hazardous waste in accordance with applicable laws and regulations.
- Protect yourself from direct contact with oils and lubricants by using gloves or protective creams.
- Wash oil marks on the skin thoroughly with warm water and soap. Do not clean the skin with petrol, diesel or other solvents.
- Oil or grease is toxic. If you have swallowed oil or grease, see a doctor immediately.
- Protect children from contact with lubricants and oils.

34.1.2 Tire pressure

Load of an empty machine on axle			
Tire	**from**	**to**	**Tire presure**
Mitas 405/70 R20	0 kg	7 920 kg	1,5 Bar
	7 920 kg	10 242 kg	2,0 Bar
	10 242 kg	12 306 kg	2,5 Bar
	12 306 kg	14 280 kg	3,0 Bar
Mitas 420/65 R20	0 kg	6 570 kg	0,6 Bar
	6 570 kg	7 530 kg	0,8 Bar
	7 530 kg	8 460 kg	1,0 Bar
	8 460 kg	9 330 kg	1,2 Bar
	9 330 kg	10 350 kg	1,4 Bar
	10 350 kg	11 400 kg	1,6 Bar

34.1.3 Recommended tightening torques

Screw connection	Tightening torque	Note
M8x1	8 Nm	Mounting screws of housing bearing
M8 (8.8)	25 Nm	
M12 (8.8)	87 Nm	Housing bearings
M16 (8.8)	210 Nm	Pneumatic cylinder wheels
M20 (8.8)	50 Nm	Swivel harrow bolts
M20 (8.8)	410 Nm	Locking bolts, pneumatic cylinder wheels axles
M24 (8.8)	710 Nm	Tray screws
Hydraulic + air connections		
M16x1,5	60 Nm	Hydraulic fittings, air fittings
M22x1,5	140 Nm	Hydraulic fittings, air fittings

35 SHUTTING DOWN THE MACHINE

Shutting down the machine for a longer period of time:

- Park the machine under a roof if possible.
- Park the machine on a level and firm surface with sufficient capacity.
- Before storing the machine, remove dirt and preserve it so that the machine does not suffer any damage during storage. Pay special attention to all marked lubrication points and lubricate them properly according to the lubrication schedule.
- Park the machine in the transport position with the frames folded down. Park the machine on the axle and parking leg, secure the machine against unintentional movement with wheel chocks or other suitable aids.
- The machine must not rest on the discs. There is a risk of damaging the machine's discs.
- Secure the machine against unauthorized access.

36 ENVIRONMENTAL PROTECTION

- Regularly check the hydraulic system for leaks.
- Preventive replacement or repair of hydraulic hoses or other parts of the hydraulic system showing signs of damage before an oil leak occurs.
- Check the condition of the hydraulic hoses and replace them in good time. The service life of hydraulic hoses also includes the time for which they were stored.
- Dispose of oils and fats in accordance with applicable waste laws and regulations.

37 END OF LIFE MACHINE DISPOSAL

- When disposing of the machine, the operator must ensure that steel parts and parts in which hydraulic oil or grease moves are distinguished.
- The operator must cut the steel parts in accordance with the safety regulations and hand them in at a collection point for secondary raw materials. They must proceed with other parts in accordance with the applicable waste laws.

38 SERVICE AND WARRANTY CONDITIONS

38.1 Service

Service is provided by a sales representative, after consultation with the manufacturer or the manufacturer directly. NSpare parts through the sales network by individual dealers throughout the country. Use spare parts only in accordance with the spare parts catalog officially issued by the manufacturer.

38.2 Warranty

1. The manufacturer provides a basic warranty for the product for a period of 12 months. In the case of immediate registration of the sale to the end customer, including their valid contact details, the end customer receives an extended warranty of 36 months. The warranty is provided from the date the product is handed over to the end user (buyer). The registration must be completed by the seller (sales representative) on the My Farmet online portal. Upon correct registration, the end user will gain access to the My Farmet portal and all the benefits of the extended warranty.

2. The warranty covers hidden defects that manifest during the warranty period under proper use of the machine and in compliance with the conditions specified in the Operating Manual.

3. The warranty does not cover consumable spare parts, i.e., normal mechanical wear and tear of replaceable working parts (shares, discs, harrow tines, roller bearings, etc.).

4. The warranty is tied to the machine and does not terminate with a change of ownership. The extended warranty is conditional upon registering the new owner's contact details in the My Farmet portal.

5. The warranty is limited to disassembly and assembly, replacement, or repair of the defective part. The decision on whether the defective part will be replaced or repaired lies with the manufacturer, Farmet.

6. During the warranty period, repairs or other interventions on the machine may only be carried out by an authorized service technician of the manufacturer. Otherwise, the warranty will not be recognized. This provision does not apply to the replacement of consumable spare parts (see point 3).

7. The warranty is conditional upon the use of original spare parts supplied by the manufacturer.

2017/001/04

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(GB) CE CERTIFICATE OF CONFORMITY
(D) EG-KONFORMITÄTSERKLÄRUNG
(F) DÉCLARATION CE DE CONFORMITÉ
(RU) СЕРТИФИКАТ СООТВЕТСТВИЯ ЕС
(PL) DEKLARACJA ZGODNOŚCI WE

1. (CZ) My (GB) We (D) Wir (F) Nous (RU) Мы (PL) My: **Farmet a.s.**

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(CZ) Vydáváme na vlastní zodpovědnost toto prohlášení. (GB) Hereby issue, on our responsibility, this Certificate. (D) Geben in alleiniger Verantwortung folgende Erklärung ab. (F) Publions sous notre propre responsabilité la déclaration suivante. (RU) Под свою ответственность выдаем настоящий сертификат. (PL) Wydajemy na własną odpowiedzialność niniejszą Deklarację Zgodności.

2.

(CZ) Strojní zařízení:	- název	:	**Secí stroj**
(GB) Machine:	- name	:	**Sowing machine**
(D) Fabrikat:	- Bezeichnung	:	**Sämaschine**
(F) Machinerie:	- dénomination	:	**Semeuse**
(RU) Сельскохозяйственная машина:	- наименование	:	**Сеялка**
(PL) Urządzenie maszynowe:	- nazwa	:	**Siewnik**
	- typ, type	:	**FALCON PRO**
	- model, modèle	:	**FALCON PRO 3 | 4 | 6 | 8**
	- **PIN/VIN**	:	
	- (CZ) výrobní číslo	:	
	- (GB) serial number		
	- (D) Fabriknummer		
	- (F) n° de production		
	- (RU) заводской номер		
	- (PL) numer produkcyjny		

3. (CZ) Příslušná nařízení vlády: č.176/2008 Sb. (směrnice 2006/42/ES). (GB) Applicable Governmental Decrees and Orders: No.176/2008 Sb. (Directive 2006/42/CE). (D) Einschlägige Regierungsverordnungen (NV): Nr.176/2008 Slg. (Richtlinie 2006/42/EG). (F) Décrets respectifs du gouvernement: n°.176/2008 du Code (directive 2006/42/CE). (RU) Соотствующие постановления правительства: № 176/2008 Сб. (инструкция 2006/42/ЕС). (PL) Odpowiednie rozporządzвetenia rządowe: nr 176/2008 Dz.U. (Dyrektywa 2006/42/WE).

4. (CZ) Normy s nimiž byla posouzena shoda: (GB) Standards used for consideration of conformity: (D) Das Produkt wurde gefertigt in Übereinstimmung mit folgenden Normen: (F) Normes avec lesquelles la conformité a été évaluée: (RU) Нормы, на основании которых производилась сертификация: (PL) Normy, według których została przeprowadzona ocena: ČSN EN ISO 12100, ČSN EN ISO 4254-1, ČSN EN 14018+A1.

(CZ) Schválil (GB) Approve by
(D) Bewilligen (F) Approuvé
(RU) Утвердил (PL) Uchwalił

date: 02.01.2024

Ing. Petr Lukášek
Technical director

V České Skalici

date: 02.01.2024

Ing. Tomáš Smola
Director of the Agricultural Technology Division