



# MECHANICAL SEEDERS

-

DS610  
DS1100  
DS1400

Return the warranty certificate within 15 days together with a copy of the invoice *(without these elements the warranty procedure cannot be implemented).*





# PREAMBULE

This manual is provided with your machine to enable you to make best use of your equipment, in particular under safe working conditions.

**All owners** are reminded that the manual is an **essential accessory** which must remain with the machine at all times, and that in the event of resale, article 1615 of the Civil Code requires that as such **it must be handed over** to the new owner.

You are also reminded that as the manual is essential to the machine, all owners must undertake to **leave it physically available** with the machine for all users to consult.





**AGRISEM**  
INTERNATIONAL

GUARANTEE RECLAMATION FORM N°

***To be returned on reception of the machine***

| Dealer  |
|---------|
| Name    |
| Address |
| Tel     |
| Code Nb |

| Owner   |
|---------|
| Nom     |
| Address |
| Tel     |

|   |  |
|---|--|
| Type of machine   |  |
| Working width   |  |
| Serial number of the machine  |  |
| Delivery date to the user's place (join a<br>copie of invoice and dealer's delivery note) |  |
| Tractor description and horse power   |  |
| Type of soil, clay %  |  |
| Surface area of farm  |  |

Date : ..... / ..... / .....

Customer's signature and client's stamp

Dealer's signature and dealer's stamp


We are fully aware of, and accept, the contents of the instruction manual and we hereby adhere to the clauses of the guarantee.

AGRISEM INTERNATIONAL - 535 Rue Pierre Levasseur CS 60263 – 44158 ANCENIS CEDEX – Tél : 02 51 14 14 40 –

Fax : 02 40 96 32 36



# DECLARATION OF COMPLIANCE WITH THE "MACHINES" DIRECTIVE



**AGRISEM<sup>®</sup>**  
**INTERNATIONAL**

535 rue P. Levasseur 44150 ANCENIS - (F) - Tél. 33(0)2.51.14.14.40 Fax. 33(0)2.40.96.32.36

MODELE

N° DE SERIE

MATERIEL FABRIQUE SOUS LICENCE

CE

The manufacturer referred to above certifies that the new equipment described below:

## MECHANICAL SEEDERS

Complies with the measures of the modified "Machines" directive (directive 98/37/CE) and with the applicable national legislation.

Ligné,

30th March 2010



Michal GUZOWSKI  
Chief Executive Officer

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## 1. INTRODUCTION

**Warranty certificate MUST be returned within 15 days of delivery of the machine to the final user.**

You have just acquired your AGRISEM machine. It has been designed to give complete satisfaction.

The equipment has been carefully designed using new solutions to reduce usage costs.

However, to get the best and most profitable use from your AGRISEM machine, please read this manual carefully before starting it and follow the instructions strictly. In particular, follow the instructions for adjusting and servicing the machine and the safety measures very carefully.

For any information or advice: please contact our dealer.

This user manual must be read and complied with by any persons who will be using it or maintaining it, in particular:

- Usage (including preparation, repairs required during periods of work and maintenance).
- Maintenance (servicing and inspection).
- Transport.

AGRISEM INTERNATIONAL cannot be held liable for personal injury or damage to equipment and malfunctions resulting from failure to comply with the instructions given by the manufacturer in this manual.

This user manual is an integral part of the machine and must always be kept with the machine, especially in case of resale.

AGRISEM INTERNATIONAL is constantly seeking to improve its products and reserves the right to modify or improve its production without being under any obligation to apply these modifications or improvements to products already on the market.

The instructions in this manual are not exhaustive and cannot cover all eventualities. The user must comply with the applicable legislation, in particular with regard to safety, ensure that the rules for safety and caution dictated by the situation are applied, use common sense and adapt the use of the machine to the circumstances.

It is the Purchaser's responsibility to check that the AGRISEM machine complies with the legislation and regulations applicable to its final destination.

## 2. WARRANTY CONDITIONS

The warranty conditions applicable to machines fitted exclusively with genuine spare parts from AGRISEM INTERNATIONAL - 535 Rue Pierre Levasseur CS 60263 – 44158 ANCENIS CEDEX, France, are as follows:

### ➤ DURATION

- If a defect is observed on a structural part within a period of **6 months** as from the date of delivery of the machine, and if this defect is due to faulty raw materials, or its manufacture at the factory. The parts presumed to be faulty must be returned to the address of the Company for expert inspection.

The following shall be considered proof of the date of delivery of the equipment:

- the date of the delivery slip and the purchaser's invoice.
- the return of the warranty certificate within 15 days (with dealer's and purchaser's stamp and signature) following delivery of the equipment.

### ➤ MACHINES AND PARTS CONCERNED

- For the purposes of this warranty, the term "Machine" is exclusively used to designate machines and parts manufactured by AGRISEM INTERNATIONAL. (It does not include external components, in particular tyres, hydraulic hoses, etc. even though these parts are also supplied by the Company)

- **The warranty is void if any modifications have been made to the machine without the formal agreement of AGRISEM INTERNATIONAL or if parts other than those manufactured by the Company have been fitted (e.g. counterfeit wear parts).**

### ➤ EXTENT OF THE WARRANTY

- The warranty is limited to the reimbursement or repair of parts recognised as faulty with regard to the raw material or machining, in our factories by our Technical Departments.
- Any costs linked to dismantling and replacement of the faulty part are not covered by the warranty. The cost of transporting machines or machine parts to the place of repair and their return to their owner is not covered either.
- Wear parts are not covered by the warranty.

### ➤ PRECONDITIONS

The machine must be maintained and used in compliance with the instructions in this User Manual.

All the safety measures described in the User Manual and in the manuals of any additional equipment must be complied with.

All the protection and safety elements, and dangerous parts (e.g. shock absorbers, etc.) must be inspected regularly and replaced if necessary.

The warranty is only valid if the customer has satisfied the general obligations of the contract, in

particular the payment conditions.

## ➤ **WARRANTY EXCLUSIONS**

The warranty does not of course apply to:

- Faults due to normal wear, incorrect use, lack of maintenance, incorrect monitoring or negligence.
- If the machine is damaged by an accident or develops a fault due to being used other than for the applications specified by AGRISEM.
- In case of non-compliant use of the machine. Please consult chapter 3 with regard to this point: Compliant use of the machine.
- If the instructions and advice issued by the manufacturer included in this manual are not complied with, in particular with regard to: safety, assembly, commissioning, usage, operation and maintenance.
- Improper handling on the part of the user.
- Causes due to the presence of foreign bodies.
- In the event of damage due to the machine being combined with other machines or instruments without prior written agreement from AGRISEM, and/or without complying with the instructions of the manufacturers of the tractor and other instruments or machines.
- If the machine is used with protection and safety devices that are incorrectly fitted or not working.
- If the machine has been modified without prior written permission from AGRISEM, or if spare parts, accessories or equipment have been fitted to the machine which were not recommended by AGRISEM.
- In case of non-compliant repair.
- If faults are due to the machine being immobilised.
- In the event of damage during transport or handling by a transporter. It is the recipient's responsibility to lodge the necessary complaints with the transporter.
- The adverse consequences of the machine being immobilised due to a fault or incident on the machine are not covered by the warranty.
- Personal injury to the owner or third party and the indirect consequences resulting from this are not covered by the warranty.

Moreover, AGRISEM INTERNATIONAL shall not be liable for the payment of compensation for any reason whatsoever in case of loss of the crop or any damage whatsoever due to a fault, hidden defect or machine breakdown.

The purchaser is always responsible for the choice of product and the suitability of the machine for the result he hopes to obtain. He is responsible for its correct use in line with professional practice and the regulations.

Under no circumstances will AGRISEM INTERNATIONAL have any obligation with regard to the final result.

## ➤ **LIMITATION AND RESPONSIBILITY**

- The warranty cannot be attributed or transferred to any other person without the prior written permission of AGRISEM INTERNATIONAL.
- Under no circumstances do those selling our machines have the right or power to make any decision whatsoever, either express or tacit, in the name of the Company.
- The technical assistance given by the Company or its representatives for the repair or operation of equipment does not make it responsible for any costs and in no way alter or lead to the waiver of the conditions of this warranty.

## ➤ **PROCEDURE FOR IMPLEMENTING THE WARRANTY: TO BE STRICTLY ADHERED TO BY THE DISTRIBUTOR AND BY THE PURCHASER**

Application of the warranty is dependant on the strict compliance on the part of the dealer and the user with the following measures:

**A) RETURN BY THE DEALER OF THE WARRANTY CERTIFICATE DULY COMPLETED AND SIGNED BY THE DEALER AND THE PURCHASER.**

**B) Claims must be made without fail on an AGRISEM INTERNATIONAL "WARRANTY CLAIM SLIP" (see appendix) and sent by registered letter with acknowledgement of receipt by the dealer to the company's technical department within 10 days as from the date of the incident. This slip must be completed legibly by the dealer and must include the following information:**

- Name and address of the dealer, code No.
- Name and address of the purchaser,
- Type of machine,
- Working width,
- Machine serial number,
- Date of delivery to the purchaser,
- Date of breakdown,
- **Precise references of the parts replaced, No. and date of invoice,**
- **Make and model of the tractor used,**
- Detailed description and assumed cause of the incident.
- Surface worked with the seeder
- Utilised agricultural land belonging to the farm,
- Type of soil % clay
- Proof of wear part invoice
  
- stones ☐ yes ☐ no
- parts replaced ☐ yes ☐ no (send photocopy of the invoice)

**C) Supposedly faulty parts are to be returned by the dealer to the Company address for expert inspection, together with the copy of the warranty claim form provided for this purpose. The dealer must order the faulty part from the spare parts department. Transport costs incurred by the return of the said parts are at the sender's expense.**

**D) The final decision regarding payment under the terms of the warranty shall be made by the company's technical or general management.** Whatever the reason for the warranty claim may be, this decision is final and irrevocable and the purchaser undertakes to accept this decision both with regard to the fault and the replacement of the part or parts.

Under no circumstances are the company salesmen authorised to make such a decision, which would be void.

*NOTE: In case of refusal, the part remains at the customer's disposal for eight days. After this time it will be scrapped with no appeal possible.*

Under no circumstances do those selling our machines have the right or power to make any decision whatsoever, either express or tacit, in the name of the Company.

## ➤ 5-YEAR WARRANTY CONTRACT

If the customer subscribes to the 5-year warranty, please see this contract for the measures and conditions for implementing this warranty.

## **2.1. EXCLUSIVE RESPONSIBILITY CLAUSE**

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AGRISEM INTERNATIONAL declines any responsibility for damage (and any indirect consequences linked to it) resulting from one or more of the following causes:

- Non-compliant use of the machine.
- Failure to comply with the instructions and advice issued by the manufacturer included in this manual, in particular with regard to: safety, assembly, commissioning, usage, operation and maintenance.
- Unsuitable assembly, commissioning usage and maintenance of the machine.
- Using the machine with faulty protection and safety measures or safety and protection measures that are incorrectly installed and not working.
- Combining the machine with other instruments or machines without the written agreement of AGRISEM and/or without complying with the instructions given by the manufacturers of the tractor and other instruments or machines.
- Modification made to the machine without the written permission of AGRISEM.
- Fitting of spare parts, accessories or equipment on the machine which are not genuine or which have not been recommended by AGRISEM.
- Failure to monitor the wear parts on the machine.
- Using the machine other than for the applications specified by the manufacturer.
- Non-compliant repair and maintenance.
- Catastrophes resulting from foreign bodies, unforeseeable circumstances and force majeure.

Moreover, AGRISEM INTERNATIONAL shall not be responsible for injury to the owner or third party nor the indirect consequences, resulting or not from a fault. You are reminded that a safety distance of 50 meters must be maintained around the machine

Any claim for compensation for damage that did not occur directly on the machine is excluded.

AGRISEM INTERNATIONAL shall not be liable for damage caused by driving or usage errors.

AGRISEM INTERNATIONAL cannot be held liable for compensation of the consequences of the immobilisation of the instrument due to a fault or an incident on the machine.

## **2.2. COMPLIANT USE OF THE MACHINE**

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AGRISEM INTERNATIONAL products must only be used for the work for which they were designed:

### **Work on arable land under normal conditions**

In the event of damage linked to the use of the machine other than for the applications specified by the manufacturer, the manufacturer shall be entirely released from liability.

Only use the machine in good technical condition, in accordance with the purpose for which it was designed and in full knowledge of the risks.

Compliant use of the machine also involves:

- Compliance with the instructions for use, servicing and maintenance issued by the manufacturer
- Compliance with all the instructions in this manual, in particular the safety instructions.
- Exclusive use of genuine spare parts, accessories and equipment or those recommended by the manufacturer.

AGRISEM machines must not be combined with other machines or instruments without prior written permission from AGRISEM INTERNATIONAL.

For any combination, the user must also comply with the instructions given by the tractor manufacturer.

AGRISEM machines must only be used, serviced and repaired by competent persons who are familiar with the features and mode of use of the machine. These persons must be informed of the dangers to which they may be exposed.

The user is required to strictly comply with the current legislation with regard to:

- Accident prevention
- Safety at work (labour code)
- Driving on the public highway (Highway code)

He is required to observe the warnings affixed to the machine. Any modifications made to the machine by the user or any other person without the prior written permission of the manufacturer releases the latter from any responsibility for damage which may result.

The damage resulting from non-compliant use of the machine:

- Is the entire responsibility of the user,
- is under no circumstances assumed by AGRISEM INTERNATIONAL

## 2.3. SAFETY INSTRUCTIONS

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### 2.3.1. Safety instructions

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#### 2.3.1.1. Introduction

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Most accidents which occur during work, maintenance or travelling from one place to another are due to failure to apply the most basic safety rules. It is therefore essential that anyone likely to be working with this machine should strictly adhere to the basic rules listed below and to the safety instructions displayed on the stickers affixed to the machine.

This machine has been designed for a specific task. It must always be in good working order and must only be repaired using genuine AGRISEM INTERNATIONAL spare parts.

This machine must only be used, maintained and repaired by competent persons who are familiar with its features, its modes of use and who are aware of the safety rules for accident prevention and the dangers to which they may be exposed.

This machine must only be used: in accordance with its final purpose and in a condition that does not present any risk to safety. Any malfunctions likely to be harmful to safety must be corrected immediately.

The user is required to strictly adhere to the safety instructions in this manual and the stickers affixed to the machine.

The user is also required to strictly comply with the current legislation with regard to: accident prevention, safety at work (labour code), occupational medicine and highway legislation.

Before using the machine for the first time, read all the safety instructions in this user manual carefully and familiarise yourself with the controls.

The machine must never be entrusted to a person who is not trained to use it.

#### **Responsibility and warranty:**

In addition to the other cases mentioned in this manual, the manufacturer declines any responsibility for any injury or damage to equipment resulting from one or more of the following causes:

- Failure to comply with the instructions and advice issued by the manufacturer included in this manual, in particular with regard to: safety, assembly, commissioning, usage, operation and maintenance.
- Non-compliant use of the machine.
- Unsuitable assembly, commissioning, usage and maintenance of the machine.
- Using the machine with faulty protection and safety devices or safety and protection devices that are incorrectly installed or not working.
- Combination of the machine with other instruments or machines without the written agreement of AGRISEM and/or without complying with the instructions given by the manufacturers of the tractor and other instruments or machines.
- Modification made to the machine without the written permission of AGRISEM.
- Fitting of spare parts, accessories or equipment on the machine which are not genuine or which have not been recommended by AGRISEM.
- Failure to monitor the wear parts on the machine.
- Using the machine other than for the applications specified by the manufacturer.
- Non-compliant repair and maintenance.
- Catastrophes resulting from foreign bodies, unforeseeable circumstances and force majeure.



In the same way, in addition to the other cases mentioned in this manual, any claim under the warranty linked to damage resulting from one or more of the above-mentioned clauses is excluded.

### **2.3.1.2.      *Instructions to respect before using the machine***

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**Wear close-fitting clothes. Loose clothing may become caught in moving parts.**

**Wear individual protective equipment corresponding to the work you are planning to do (gloves, shoes, goggles, helmet, ear protection, etc.).**

**Be aware that tillage equipment, even of small width, has very sharp elements (blades, shares, disks, etc.) which can cause serious injury in case of accident.**

**Before each time the machine is used, check the area around the machine (presence of children). Ensure you have sufficient visibility.**

Before any work, ensure that the tractor is sufficiently weighted at the front to avoid any risk of the front lifting. If not, add weights to the front of the tractor.

Check that screws, nuts and bolts are correctly tightened before each time you use the machine. Tighten if necessary. Also check the condition of the tools and their fastening elements in accordance with the instructions in this manual.

**While folding and unfolding the machine, no one must be within 50 metres of the machine.**

Check that the machine is correctly hitched.

Always install the pins and locking systems.

**Check that the machine complies with personal safety.**

Check before each time you use the machine that the safety and protection devices are in place and working. Replace any worn or damaged protector immediately.

**Move any person or animal likely to be in the area where the machine is manoeuvring or being used. A 50-metre safety zone must be kept clear around the machine.**

Go around the machine looking for any external damage and checking the condition of the protection devices.

Only persons authorised by the owner of the machine and who have been trained are allowed to work on and with this machine. The operator is responsible with regard to third parties when he is working on and with the machine.

The owner of the machine must:

- Provide the operator with the user manual.
- Ensure that the operator has read it and understands it.
- Ensure that the operator knows the basic instructions regarding safety at work and accident prevention.

### 2.3.1.3. *Instructions to be respected for hitching and unhitching*

Pay attention to the various possibilities permitted for connecting the tractor's coupling equipment to that of the machine.

Only combine equipment that is compatible (machine and tractor)

- **Check that the tractor has the necessary characteristics to hitch the machine.**

#### **WARNING:**

**Risk of the tractor breaking during operation, of having insufficient stability under load, and insufficient manoeuvrability and braking power in the case of non-compliant implementation.**

Check that the tractor satisfies the necessary requirements before installing or hitching the machine.

The machine must only be mounted on a tractor or hitched to a tractor if it satisfies the necessary requirements.

Perform a braking test to check that the tractor can provide the regulatory deceleration power even with the machine mounted or hitched.

The requirements relating to the tractor concern in particular:

- The total authorised weight
- The authorised axle loads
- The authorised vertical load on the tractor coupling point
- The permissible load capacities of the tyres mounted on the tractor
- Sufficient authorised load on the coupling point

You will find this information on the data plate or on the vehicle's registration papers and in the tractor user manual.

The tractor's front axle must systematically be able to support at least 20% of the empty weight of the tractor.

- Calculation of the real values of the total tractor weight, tractor axle load and the load capacity of the tyres, and of the minimum ballast required:

The total authorised weight of the tractor indicated on the vehicle's registration papers must be greater than the sum of:

- The empty weight of tractor,
- The ballast
- The total weight of the mounted machine or the vertical load of the hitched machine.

#### ***This instruction only applies in Germany:***

*If the axle loads and/or the total authorised weight are not complied with after all the possibilities have been exhausted, the competent authority according to the law of the land, may deliver a waiver based on the report of an approved expert in the field of motor vehicle circulation and with the agreement of the manufacturer, in accordance with article 70 of the German law governing the authorisation of vehicles to use the public highway, and the obligatory authorisation with regard to the German highway code.*

Combination of machines: do not combine machines which are incompatible or a combination of which is incompatible with the tractor.

**AGRISEM declines all responsibility in the case of damage resulting from a combination of machines which has not received written authorisation from AGRISEM.**

**Danger of accidents linked to the breakage of components during operation resulting from unauthorised combinations of hitching equipment.**

**Hitching and ballasting are operations which involve a risk of injury.**

➤ **Before hitching or unhitching:**

- Place the machine on stable ground.
- Chock the machine and take all the necessary measures to avoid accidental movement of the tractor.

The machine must only be coupled using the coupling points provided for this purpose and in compliance with the applicable rules.

When hitching, do not exceed:

- The total authorised weight for the tractor
- The authorised axle loads for the tractor
- The permissible load capacities of the tyres mounted on the tractor.



**No one must be standing between the tractor wheels and the tool when hitching or unhitching.**

*2.3.1.4. Instructions to respect before using the machine*

**WARNING**

**Risk of accident involving crushing, cuts, entanglement, pinching or impacts linked to a safety fault concerning movement or operation.**

Before starting up, check that the machine and the tractor are able to move and operate in complete safety.

**Never climb on to the machine or stand on it when it is moving.**

Never work in reverse.

**Never allow children to climb on the tractor or the machine, or play near the equipment, even if the machine is stopped.**

**When using or manoeuvring the machine ensure no one is within the manoeuvring or working area.**

**The elements of the machine controlled by external force have crushing and shearing zones. Keep away from these hazardous areas.**

Be aware of hidden obstacles (stones, roots, pipes, cables, etc.) in case of collision with an obstacle.



**It is essential to stop the drive, stop the tractor engine, remove the ignition key and wait for the machine to stop completely.**

Before starting work again, check the machine for any damage.  
If the obstacle is an electric cable or gas pipe, inform the appropriate authorities.

When using the machine, stones or other foreign bodies are likely to be thrown a considerable distance.

**Move any person or animal likely to be in the danger area around the machine.**

Do not stand in the machine's working area nor in the area where the machine rotates and pivots.  
Each time the machine is used, carry out a careful visual inspection of the machine to detect any external damage and ensure the safety and protection devices are operating correctly. Also carry out regular inspections of the various settings.



**Do not approach the machine until all the moving parts are completely immobile.  
Enforce a 50-meter safety area around the machine.**

➤ **With regard to driving :**

Adapt your driving to ensure you are in control of the tractor with the machine mounted or hitched under all circumstances.

In this respect, take into account your personal faculties, the conditions of the land or road, the traffic, the visibility and the weather, the tractor's driving characteristics and the conditions of use when the machine is mounted or hitched.

**Ensure that the rules for safety and caution required for situation are applied.**

The speed and method of driving must always be adapted to the land, roads and tracks.

On uneven ground or tight corners, reduce speed.

In bends, take into account the overhang and the inertia of the mounted tool.

Avoid sudden changes of direction at all times.

Do not leave the driver's seat until the equipment has completely stopped, the engine is off and the parking brake is on.

**Do not transport any person or animal on the machine and additional tools during work or transport.**

➤ **When driving on the public highway:**

**Comply with the highway code applicable in your country.**



**Before going out on the public highway, check the regulatory width of the machine and unbolt or remove elements which exceed this width.**

Take into account authorised widths for transport and take into account the transported height depending on the hitched machine, in line with current legislation.

Before setting off on the road ensure that the hitched machine is fitted with the lighting and signalling devices required by the highway code and any other measures required by the current regulations.

AGRISEM rear signalling lights and panels can be removed when working. Check that this signalling equipment has been correctly refitted.

Check that this equipment is clean and is working properly. Replace all missing or damaged equipment.

Before travelling on the road, secure all pivoting parts of the machine in transport position to avoid dangerous changes of position. Also check that the screws, nuts and bolts are tightened and that all parts of the machine are correctly attached and cannot move or become detached.

If your machine is a folding machine, the locking system must be engaged.

Follow the instructions in this manual concerning preparing the machine for transport.

If necessary, also check:

- The connection of the supply pipes,
- The braking system and the hydraulic circuit.

If the equipment does not already have them, fit signalling devices: lighting board, reflectors, reflective plates or adhesive strips.

Ensure that the machine or additional equipment does not hide the tractor's lights.

Ensure the tractor tyres are inflated to the correct pressure.

Ensure the tractor and additional equipment is correctly balanced.

Install ballast at the front and back to ensure the brakes and steering are effective.

The tractor's front axle must systematically support at least 20% of the empty weight of the tractor to guarantee sufficient manoeuvrability.

**Never drive at more than 25km/hour when under load.**

Clean off any soil sticking to the machine before going out on the road.

After using the public highway, ensure the road is cleaned of any mud left by the tractor and tools.

|  |
|--|
| <b>When transporting the machine on the public highway, the driver/owner is fully responsible.</b> |
|--|

#### *2.3.1.5. Instructions to respect before carrying out any operations on the machine*

---

In particular during cleaning, servicing and repairs.

**Comply with the instructions in this manual regarding servicing the machine.**

Before carrying out any operations on the machine:

- It is essential to ensure the machine is on stable ground.
- **Stop the tractor engine, remove the ignition key, wait for all the moving parts to stop and engage the hand brake.**
- Set the machine on the ground, depressurise the hydraulic circuit and allow the machine to cool down.
- Secure the machine or elements that are in a raised position to avoid any accidental lowering.
- Chock the machine.

If using a high-pressure washer or steam cleaner, it is essential to comply with the following points:

Do not clean electrical and hydraulic components.

Never direct the high-pressure washer or steam cleaner nozzle directly at the lubrication points or bearings.

Systematically keep the nozzle a reasonable distance from the machine.

Comply with the rules for using high-pressure washers.

**Wear appropriate personal protective equipment for the work to be performed. In particular, wear safety shoes and gloves to handle sharp parts.**

**Take all the necessary precautions when fitting working parts that are both heavy and sharp.**

The machine must only be serviced and repaired by competent persons who are familiar with the features and mode of use of the machine.

**The machine must only be repaired with genuine AGRISEM International spare parts.**

For bare metal parts, use either an anti-rust product leaving a greasy film or thick grease.

According to the type of machine: before carrying out any work on the electrical circuit or before any welding operations, disconnect the wiring harnesses coming from the tractor. Disconnect the battery cables and alternator cables.

**Do not weld or use blow torches near pressurised fluids or inflammable products.**

#### *2.3.1.6. Instructions regarding installation*

The machine can be fitted with electronic components and elements which can be affected by electromagnetic emissions from other devices. This type of influence may be a source of danger for people if the following safety instructions are not followed:

- If devices and/or electrical components are installed and connected to the dashboard electrical circuit at a later date, the user must first check that the installation will not disturb the vehicle's electronics or other components.
- Ensure that electric and electronic components subsequently installed comply with directive 2004/108/CEE regarding electromagnetic compatibility in its current version and that they have CE marking.

Before carrying out any operations on the electrical installation, disconnect the battery's negative terminal.

Only use the recommended fuses. Using fuses which have too high an amperage may damage the electrical installation with a risk of fire.

Ensure the battery terminals are correctly connected, starting with the positive terminal and then the negative terminal. When disconnecting the terminals, start with the negative terminal and then disconnect the positive terminal.

Systematically fit the cover provided for this purpose on the positive terminal on the battery. Be careful of the risk of explosion when earthing.

**Risk of explosion: avoid sparks and naked flames near the battery.**

### *2.3.1.7. Instructions regarding the hydraulic system*

---

If your machine is fitted with a hydraulic circuit, you must comply with the following instructions:

**Warning! The hydraulic circuit is pressurised.**

When mounting cylinders and hydraulic devices, take particular care to ensure that the circuits are correctly connected, in accordance with the manufacturer's instructions.

Mark the sockets and connectors for the hydraulic connections between the tractor and the machine.

Before connecting a hose to the tractor's hydraulic circuit, ensure that the circuits on both the tractor side and the machine side are perfectly clean and not under pressure.

Before connecting, check that the hydraulic quick connectors on the machine and the tractor are free from impurities.

Before performing any operation on the hydraulic circuit, lower the machine, depressurise the circuit, switch off the tractor engine, engage the parking brake and remove the ignition key.

Before carrying out any operation, allow the machine to cool down and discharge the accumulators on the hydraulic circuits.

Check hydraulic hoses regularly. Damaged or worn hoses must be replaced immediately. Check the appearance of hydraulic hoses to detect any signs of tears or abnormal wear.

When replacing hydraulic hoses, ensure you only use hoses with the characteristics and quality recommended by the manufacturer of the machine.

After each time the machine is used, clean the end fittings of the hydraulic quick connectors and fit protective caps. Replace connectors which do not lock correctly or which leak.  
Hydraulic hoses must never trail on the ground.

If you find a leak, take all the necessary precautions to avoid accidents. Never try to plug the leak with your hand or fingers.

**Any pressurised liquid, in particular oil in hydraulic circuits, can penetrate the skin and cause serious injury and infections.  
In case of injury, consult a doctor immediately.**

To avoid accidents caused by unexpected hydraulic movements or by third parties, the distributors on the tractor must be locked or immobilised when they are not being used or in transport position.

### *2.3.1.8. Instructions relating to the braking system.*

---

**The braking system must be checked and serviced regularly.** Servicing and repair work and adjustments must only be carried out by brake system specialists.  
Stop the tractor immediately in case of brake system malfunction and have it repaired.

Before performing any operations on the braking system, place the machine on stable ground and chock it.

After any adjustment or repair work on the braking system, perform a braking test.

### 2.3.1.9. *Instructions specific to AGRISEM seeders*

---

In addition to the instructions applicable to all machines, the user of an AGRISEM seeder must comply with the following instructions:

**Never climb on the machine elsewhere than on the AGRISEM walkway provided for this purpose.  
Only climb on the machine when it is stopped.**

When operations are performed on the AGRISEM seeder or during flow tests, the seeder must be stationary and a 50 meter safety area must be enforced around it. The hydraulic system must be depressurised (e.g. turbine stopped) and the rear window of the tractor must be shut, the tractor switched off and the ignition keys removed.

Ensure that no one is on or near the seeder when the grain is being loaded. The AGRISEM walkway must only be used when the seeder is stationary.

Always ensure that the entire area corresponding to the size of the seeder is completely clear.

Never stand under the sun wheel when it is in transport position.

When testing the distribution flow, the user must turn the sun wheel with care to avoid any injury. When the wheel is rotating, no one must be within 50 meters of the machine. No one must put their fingers into the distribution grooves unless the transmission system is completely stopped.

When changing the transmission gear ratios, ensure the gearing and chain are handled with the greatest care to avoid any injury. No one must be within 50 meters of the machine. Ensure you do not put yourself in danger when changing the gearing by avoiding climbing on the beams or disks of the machine, as this could be dangerous.

Ensure the sun wheel is protected during transport to avoid it hitting anything or injuring anyone.

When starting up the turbine, a safety area must be enforced around the machine due to the risk of objects or liquids being ejected (e.g. soil, oil, stones, metal, etc.).

When travelling on the public highway, always be very careful and alert. As the rear visibility is reduced during transport, ensure that the way is clear before reversing the machine (50 meter safety area).

The user must comply with the highway regulations applicable in his country with regard to the front hopper.

If the tractor's signalling equipment is not sufficient (or not sufficiently visible) ensure you fit your front hopper with lighting and signalling plates.



**When working, a 50 meter safety area must be enforced due to the risk of objects being ejected.**



#### *2.3.1.10. Instructions relating to safety systems with spring security*

---

There are safety devices with pre-compressed spring securities on many AGRISEM tools. They can be very dangerous when performing technical operations on the machine if all the necessary precautions are not taken.

**WARNING: Written authorisation must be obtained from AGRISEM International before carrying out any operations on the “Spring Security”.**

#### *2.3.1.11. Instructions relating to transmission shafts with universal joints*

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Consult the tractor manufacturer's instructions for any operations on transmission shafts with universal joints.

#### *2.3.1.12. Instructions relating to loading and transport*

---

Unless there is a specific transport contract:

- For transportation of less than three tonnes: The transporter carries out the loading, chocking, securing and unloading of the equipment from when he takes charge of it until its delivery.
- For transportation over three tonnes: Loading, chocking and securing on the one hand, and unloading on the other hand are respectively the responsibility of the contracting party or the recipient. The responsibility for equipment damage which occurs during these operations lies with the person carrying them out.

Therefore, unless there is a specific transport contract, and for transportation of loads greater than 3 tonnes, the Purchaser unloads the machine under his own responsibility.

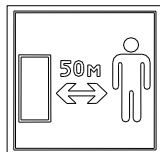
In the same way, if the Purchaser sells the machine and has it delivered, as the sender, he carries out the loading, chocking and securing of the equipment when it is sent.

**In case of doubt regarding the unloading or loading, chocking and securing of the machine, contact AGRISEM International.**

### 2.3.2. Safety symbols on the machine

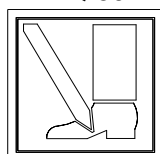
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**ETIQ-501**



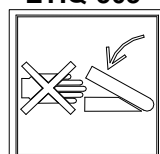
Keep a safe distance from the machine during work. Risk of serious injury.  
Ensure that no one is in the danger zone around the machine when the tractor engine is running.

**ETIQ-502**



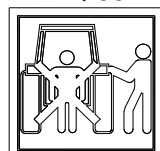
Keep a safe distance from the machine when lowering it. Risk of serious injury.  
Ensure that no one is under the machine when lowering it.

**ETIQ-503**

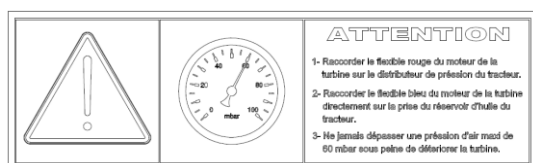


Beware of pinching. Risk of serious injury.  
Do not touch the hazardous areas under any circumstances while the tractor engine is running and the universal joint shaft, hydraulic circuit or electronic system is operating.

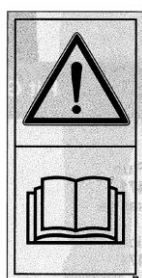
**ETIQ-504**



Keep a safe distance from the rear of the tractor during manoeuvres. Risk of serious injury.



Warning, never exceed a maximum air pressure of 60mbar as this may damage the turbine.



Read the maintenance book and safety instructions before starting up the machine and abide by them during operation.



## 3. TECHNICAL INSTRUCTIONS

### 3.1. ADJUSTMENTS / USING THE MECHANICAL DISC-O-SEM

#### PREAMBULE:

As far as possible, read this chapter while standing in front of the machine.

The DISC-O-SEM chassis can be fitted with a variable number of disks. Each disk is fitted with a replaceable wear disk. The working depth of the disks is controlled by the depth control device, a roller (e.g. cage roller or Flexi-Pack roller)

When you receive the DISC-O-SEM, check that its characteristics are appropriate. Then carry out all the preliminary operations prior to start-up as described in this manual.

#### 3.1.1. Hitching / unhitching



**Before reading the practical instructions for hitching and unhitching the machines, it is ESSENTIAL to read the safety instructions first.**



**No person must be within 50 meters of the machine while hitching or unhitching**

Before hitching or unhitching the DISC-O-SEM, it is important to ensure that:

- The tool is or will be on stable ground and no one is within 50 meters of the machine.
- The top-links of the tractor's three point hitch are adjusted to the same dimensions.
- The tractor tyres are inflated to the same pressure.
- The tractor is adapted to the tool to be hitched and is weighted appropriately.
- The tractor connections are adapted to the tool to be hitched.
  
- When hitching, do not exceed:
  - The total authorised weight for the tractor
  - The permissible load capacities of the tyres mounted on the tractor.
  - The authorised axle loads for the tractor

#### Characteristics required of the tractor



**Check that the tractor satisfies the necessary requirements before hitching the machine:**

- Total authorised weight
- Permissible load capacities of the tyres



**The authorised values for the total weight, the axle loads and the tyre load capacities can be found in the tractor's registration papers.**

### 3.1.1.1. *Tractor-mounted machine*

---

#### ➤ **Hitching a tractor-mounted machine:**

- 1/ Ensure the machine is on stable ground
- 2/ Bring the tractor up to the coupling on the machine.
- 3/ Place the lower link arms in line with the drawbar couplings.
- 4/ Hitch the lower link arms using the appropriate equipment.
- 5/ Adjust the length of the top link and attach it using the pin and clip provided.
- 6/ Lock all the hitch pins with lock handles using the clip pins.
- 7/ Connect the hydraulic hoses if the machine has them.
- 8/ Connect the plug for the lighting and check that it is operating (optional)
- 9/ Lift the machine
- 10/ Fold the side extensions to transport it if it folds.
- 11/ Lock the machine for transport if it folds using the hydraulic controlled hook or mechanical locks.
- 12/ Ensure that everything is correctly connected and locked and that there are no foreign bodies on the machine.



**Take into account the clearance during transport, in particular to pass under bridges and low power lines)**

#### ➤ **Parking:**

- 1/ Ensure the machine is unhitched on stable ground.
- 2/ Unlock the machine before unfolding it
- 3/ Unfold the machine if it folds
- 4/ Disconnect the hydraulic hoses if the machine has them.
- 5/ Disconnect the plug for the lighting equipment.
- 6/ Unhitch the machine

### 3.1.1.2. *Trailed machine*

---

#### ➤ **Hitching a trailed machine:**

- 1/ Ensure the machine is on stable ground
- 2/ Bring the tractor up to the coupling on the machine.
- 3/ Hitch the machine to the coupling ring or to the tractor's three-point hitch depending on the type of drawbar attachment.
- 4/ Connect the hydraulic hoses if the machine has them according to the colour code. If you are using a towing hook, connect the hydraulic hoses first to correct the height of the drawbar.
- 5/ Connect the plug for the lighting and check that it is operating (optional)
- 6/ Lift the machine with the drawbar and the trailed or semi-mounted kit.
- 7/ Fold the side extensions for transport.
- 8/ Lock the machine for transport if it folds using the hydraulic controlled hook or mechanical locks.
- 9/ Ensure that everything is correctly connected and locked and that there are no foreign bodies on the machine.



**Take into account the clearance during transport, in particular to pass under bridges and low power lines.**



**On tractor-mounted machines, the drawbar must be hitched to the top holes on the lower arms. This improves the stability of the machine when working.**

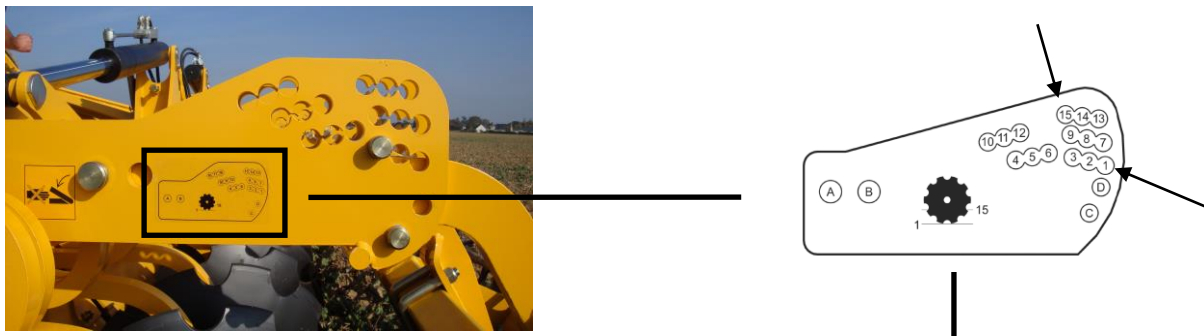
- 1/ Ensure the machine is unhitched on stable ground.
- 2/ Unlock the machine before unfolding it
- 3/ Unfold the machine if it folds
- 4/ Lower the machine with the drawbar and the trailed or semi-mounted kit.
- 5/ Disconnect the hydraulic hoses if the machine has them. If you are using a towing hook, disconnect the hydraulic hoses last to be able to correct the height of the drawbar.
- 6/ Disconnect the plug for the lighting equipment.
- 7/ Unhitch the machine

### 3.1.2. Adjustments / Use

#### 3.1.2.1. Adjusting working depth using the roller

The working depth for the rear disks is controlled by the roller. This also levels and compresses the soil after the disks have loosened it.

##### Example:



There are several working depth settings thanks to the Agrisem "**MULTISTOP**".

The lowest position corresponds to the minimum working depth, here position **1**

The highest position corresponds to the maximum working depth, here position **15**

Position **(A)** corresponds to the position of the roller in relation to the Disc-O-Mulch. This is the position in which the roller kit and the rear row of disks are the closest. This is the standard mounting of a roller kit on a Disc-O-Mulch.

Position **(B)** corresponds to the position in which the roller is the furthest away for greater distance between the roller kit and the rear row of disks.

Positions **(C)** and **(D)** correspond to the bottom roller stop. This allows you to limit the travel of the roller arm between the lower and upper stops.

##### **ADVICE:**

- As soon as the working position allows it, block the roller arms using the lower stop pins. This avoids friction between the roller arms and the multi-stops which could result in premature wear.
- It is the setting of the multi-stops and therefore the height of the roller which influences the working depth. A Disc-O-Mulch works on the surface (between 2 and 6cm) at a high forward speed (approximately 12km/h).



### 3.1.2.2. *Disc-O-Sem settings for firm ground*

---

#### **Tractor 3-point hitch in floating position with no position control**

Adjusting the working depth of the 1st row of disks:

Alter the length of the tractor's top link. By shortening the top link, the depth of the first row of disks increases.

**Caution**, the working depth visible when stopped is often less than when the machine is moving. At speed, the pressure of the machine on the top link and the percussion effect of the 3D safety system increases the working depth. You should therefore check the working depth by examining the profile of the topsoil in an area worked at speed and not at the edge of the field.



#### **Adjusting the working depth of the 2nd row of disks:**

The second row of disks is controlled by the rear roller with the help of the multi-stops.

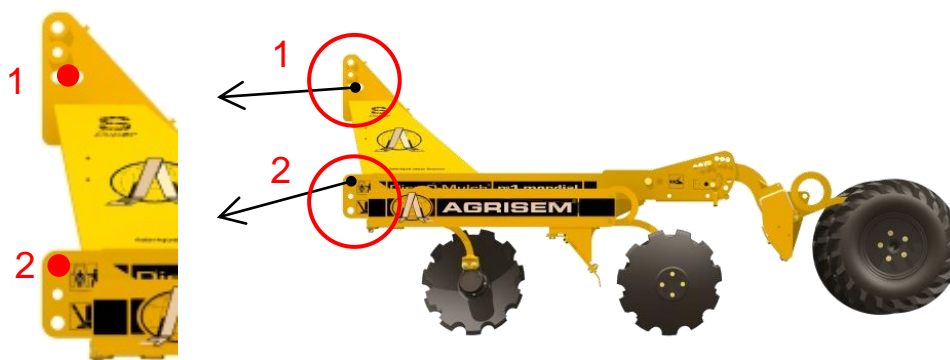
### 3.1.2.3. *Disc-O-Sem settings for soft ground*

---

On soft ground, the pressure of the Disc-O-Sem on the tractor's top link can render the machine unstable. You should therefore modify the settings of the machine.

Disconnect the tractor's top link from the Disc-O-Sem. You must then **adjust the working depth of the 1st row of disks accurately using the tractor's 3-point hitch position control.** When the desired working position at high speed is achieved, stop the tractor and reconnect the tractor's top link to the Disc-O-Sem in floating position. The coupling pin must be in the centre of the elongated hole

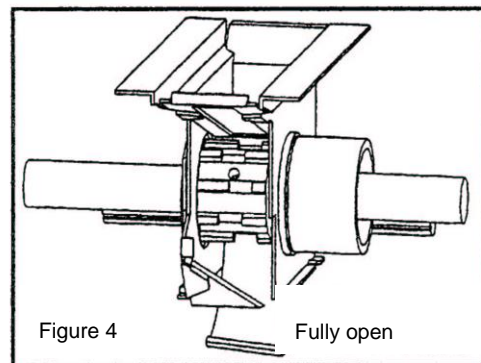
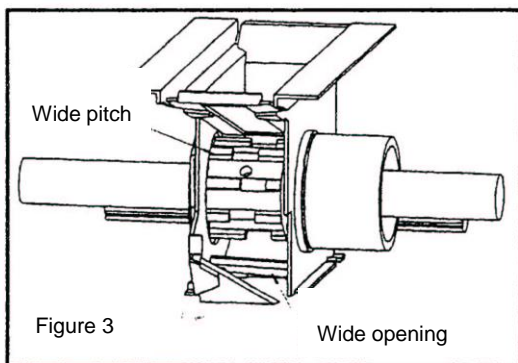
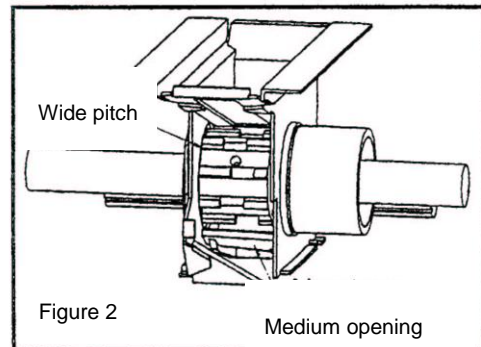
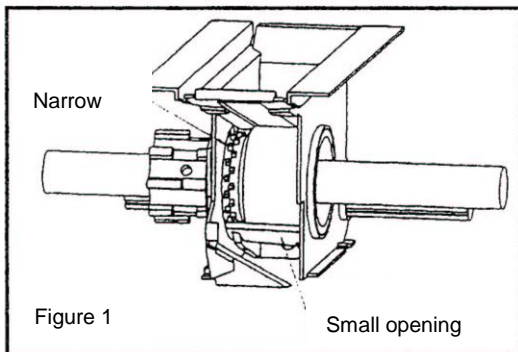
If the machine is still unstable, **lateral stabilising wheels** must be fitted. These wheels will prevent the machine from rocking from left to right and going into vertical resonance. These are stabilising wheels and not position control wheels. They must be adjusted to approximately 2cm above the ground.



#### 3.1.2.4. The batchers

"One-two" type batchers can work according to two different pitches:

- Narrow pitch, small lugs for fine seeds. (figure 1)
- Wide pitch, staggered teeth for normal and large seeds. (figures 2 and 3)



The moveable base has two purposes:

- Modify the lower opening of the hatch according to the seed measurement. (figures 1, 2 and 3)
- Empty the seed from the hopper into the trough fully opening the hatches. (figure 4)



**To move the drum from WIDE pitch to NARROW pitch, the batchers must be clean.**

Once the batcher pitch and the opening of the moveable base have been adjusted, the flow of seed to be distributed will depend on the speed of the batcher drums.

The speed variator allows you to sow accurately from 0 to 600kg/ha.

### 3.1.2.5. *Adjusting the position of the tongues on the moveable base*

The moveable base of the hopper is fitted with tongues. They are all fitted to the same shaft and controlled by the same device. However, each of them can be individually adjusted to achieve optimum accuracy. The machine is pre-set as standard using a positioner on the control shaft.

To alter this standard setting, simply use the tongue adjustment screws to change the position.



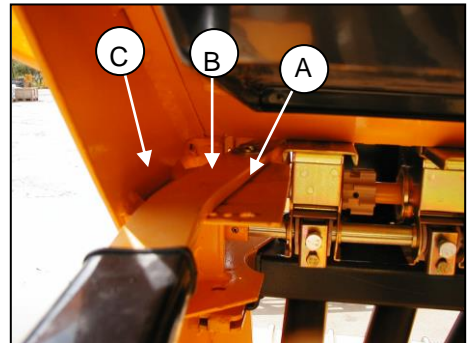
It is essential to check ALL the tongues before each time the seeder is used. When the moveable base control lever is in position 1, ALL the tongues must be resting on the groove without forcing.

### 3.1.2.6. *Batcher calibration*

Check that the batchers are open and the hatches are not closing the seed pitch.  
Before filling the hopper, connect the agitator bushing to the variator spindle and check beforehand that there is nothing in the hopper.

Adjust the batcher position lever:

to the right (A) WIDE pitch for wheat, barley, etc.  
centre (B) MEDIUM pitch for sunflowers, peas, etc.  
to the left (C) NARROW pitch for alfalfa, rape, etc.

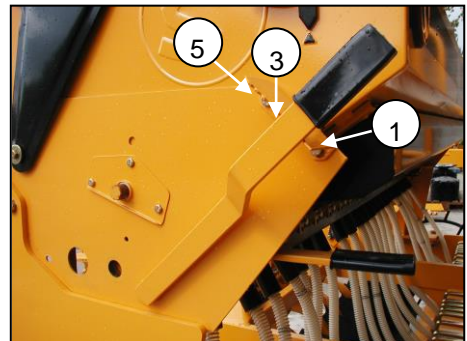


Adjust the moveable base lever:

In position (1) for fine seeds  
In position (3) for wheat and barley  
In position (5) for very large seeds

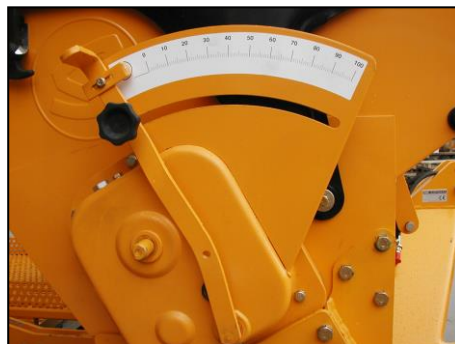
To empty the hopper place the trough must be placed under the batchers.

and move the lever further on than position (5)





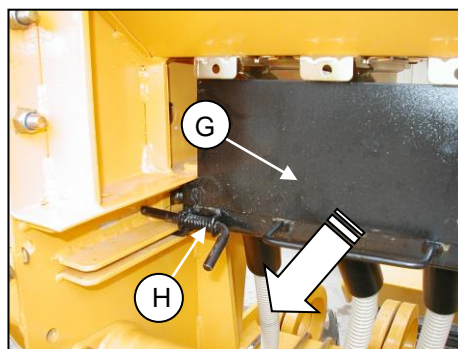
Place the arm on the numbered sector from 0 to 100 depending on the seed used.



### 3.1.2.7. Flow rate test procedure

When the batcher pitch, the opening of the moveable base and the variator lever have been adjusted, carry out a batcher test:

Slide the tube lowering support bar (G) forwards, releasing the levers (H) holding it in its working position.



Turn the SUN wheel a few times until the seed starts to fall into the trough.

Remove the seed and then turn the sun wheel the required number of times according to the width of the seeder.

Recover the seed and weigh it.  
Multiply the result by 40 to obtain the flow rate per hectare.



| Seeder width | Number of times to turn the sun wheel. | Multiply the result by 40<br>to obtain the flow rate per<br>hectare |
|--------------|--|---|
| 3m           | 30                                     |   |
| 4m           | 22                                     |   |

The wheel must be turned regularly, approximately one turn per second. The number of turns is approximate and can vary depending on the terrain.

The machine must be hitched to the tractor and slightly lifted while carrying out this operation. You are also advised to half-fill the seed hopper to make it easier to turn the wheel by hand.  
If there is a lot of dust from the seed preparation, this can reduce the flow rate. A second test must therefore be carried out.

#### 3.1.2.8. Flow rate test

#### 3.1.3. Metering table for the DS610 and DS1100



The quantities given in the table are for information only, they may vary due to dust, humidity or if the densities are different.



For accurate sowing, please refer to the table in page 35 METERING TEST



N.B. A small seed requires a smaller opening than a large seed.  
A round seed requires a smaller opening than an elongated seed.  
A heavy seed requires a smaller opening than a light seed.

### 3.1.3.1. Seed metering table (kg/ha)

| Sector No.                    | WHEAT | BARLEY | TRITICALE | PEAS | BEANS | COLZA  | VETCH | RYE-GRASS | ALFALFA | SPINACH |
|-------------------------------|-------|--------|-----------|------|-------|--------|-------|-----------|---------|---------|
| Batchers in pitch             | wide  | wide   | wide      | wide | wide  | narrow | wide  | narrow    | wide    | narrow  |
| 14                            |       |        |           |      | 67,4  | 3,5    | 63,7  |           | 11,4    | 5       |
| 16                            |       |        |           |      | 80,7  | 4,7    | 77    |           | 13,9    | 5,9     |
| 18                            |       |        |           |      | 95,9  | 5,3    | 93,1  |           | 16,8    | 7,4     |
| 20                            | 74,1  | 58     | 56,1      | 40   | 114   | 6,2    | 107,4 |           | 19      | 8,7     |
| 22                            | 83,6  | 64,6   | 61,7      | 45   | 127,3 | 7,5    | 123,5 |           | 21,8    | 10,5    |
| 24                            | 93,1  | 71,3   | 68,4      | 48   | 140,6 | 8,5    | 135,9 |           | 23,4    | 11,7    |
| 26                            | 100,7 | 79,8   | 74,1      | 54   | 160,6 | 10,9   | 149,2 | 9,8       | 25,6    | 13,1    |
| 28                            | 110,2 | 86,5   | 81,7      | 59   | 175,8 | 12,4   | 168,2 | 10,9      | 29,2    | 14,5    |
| 30                            | 116,8 | 94,1   | 88,3      | 65   | 191   | 13,5   | 185,2 | 12,1      | 31,4    | 16      |
| 32                            | 131,1 | 100,7  | 96,9      | 68   | 207,1 | 14,9   | 194,7 | 13,5      | 34,2    | 17,5    |
| 34                            | 132   | 108,4  | 106,4     | 72   | 221,3 | 16,5   | 214,7 | 16,1      | 37,1    | 18,8    |
| 36                            | 140,6 | 116,8  | 115,9     | 77   | 240,4 | 18     |       | 17,4      | 39,9    | 19,9    |
| 38                            | 148,2 | 123,5  | 123,5     | 81   |       | 19,9   |       | 18,3      | 43,7    | 21,9    |
| 40                            | 156,8 | 131,1  | 131,1     | 85   |       | 21,7   |       | 19,5      | 49,4    | 25,6    |
| 45                            | 174,8 | 148,2  | 144,4     | 89   |       | 24,4   |       | 21,1      | 53,2    | 29      |
| 50                            | 193,8 | 163,4  | 157,6     | 97   |       |        |       | 23,1      | 59,8    | 32,4    |
| 55                            | 212,9 | 187,1  | 173,8     | 101  |       |        |       | 26        | 62,7    | 38,9    |
| 60                            | 231,8 | 196,7  | 189,1     | 109  |       |        |       | 30,8      | 67,4    |         |
| 65                            | 250,8 | 212,9  | 204,3     | 134  |       |        |       | 35        |         |         |
| 70                            | 270,7 | 228    | 219,5     | 145  |       |        |       | 44        |         |         |
| 75                            | 289,7 | 245,1  | 234,6     | 155  |       |        |       |           |         |         |
| 80                            | 309,7 | 259,4  | 249,8     |      |       |        |       |           |         |         |
| 85                            | 325,8 | 275,6  | 264,1     |      |       |        |       |           |         |         |
| 90                            | 343,9 | 289,7  | 280,3     |      |       |        |       |           |         |         |
| 95                            | 361,9 | 305,9  | 295,5     |      |       |        |       |           |         |         |
| 100                           | 381,9 | 321,1  | 311,6     |      |       |        |       |           |         |         |
| Moveable base lever           | 3     | 3      | 3         | 5    | 4     | 1      | 3     | 2         | 1       | 1       |
| weight of 1000 seeds in grams | 40    | 46     | 30        | 293  | 530   |        | 44    |           |         | 12      |

### 3.1.4. Seed metering table for the DS1400



The quantities given in the table are for information only, they may vary due to dust, humidity or if the densities are different.



For accurate sowing, please refer to the table in paragraph 4 METERING TEST



N.B. A small seed requires a smaller opening than a large seed.  
A round seed requires a smaller opening than an elongated seed.  
A heavy seed requires a smaller opening than a light seed.

#### 3.1.4.1. Seed metering table (kg/ha)

| Sector No.                    | WHEAT | BARLEY | TRITICALE | PEAS  | BEANS | COLZA  | VETCH | RYE-GRASS | ALFALFA | SPINACH |
|-------------------------------|-------|--------|-----------|-------|-------|--------|-------|-----------|---------|---------|
| Batchers in pitch             | wide  | wide   | wide      | wide  | wide  | narrow | wide  | narrow    | wide    | narrow  |
| 14                            |       |        |           |       | 89,7  | 4,7    | 84,9  |           | 15,2    | 6,7     |
| 16                            |       |        |           |       | 107,6 | 6,3    | 107,7 |           | 18,5    | 4,4     |
| 18                            |       |        |           |       | 127,9 | 7,1    | 124,1 |           | 22,4    | 9,9     |
| 20                            | 98,8  | 77,3   | 74,8      | 53,3  | 152   | 8,3    | 143,2 |           | 25,3    | 11,6    |
| 22                            | 111,5 | 86,1   | 82,3      | 60    | 169,7 | 10     | 164,7 |           | 29,1    | 14      |
| 24                            | 124,1 | 95,1   | 91,2      | 64    | 187,5 | 11,3   | 181,2 |           | 31,2    | 15,6    |
| 26                            | 134,3 | 106,4  | 98,8      | 72    | 214,1 | 14,5   | 198,9 | 13,1      | 34,1    | 17,5    |
| 28                            | 146,9 | 115,3  | 108,9     | 78,7  | 234,4 | 16,5   | 224,3 | 14,5      | 38,9    | 19,3    |
| 30                            | 155,7 | 125,5  | 117,7     | 86,7  | 254,7 | 18     | 246,9 | 16,1      | 41,9    | 21,3    |
| 32                            | 174,8 | 134,3  | 129,2     | 90,7  | 276,1 | 19,9   | 259,6 | 18        | 45,6    | 23,3    |
| 34                            | 176   | 144,5  | 141,9     | 96    | 295,1 | 22     | 286,3 | 21,5      | 49,5    | 25,1    |
| 36                            | 187,5 | 155,7  | 154,5     | 102,7 | 320,5 | 24     |       | 23,2      | 53,2    | 26,5    |
| 38                            | 197,6 | 164,7  | 164,7     | 108   |       | 26,5   |       | 24,4      | 58,3    | 29,2    |
| 40                            | 209,1 | 174,8  | 174,8     | 113,3 |       | 28,9   |       | 26        | 65,9    | 34,1    |
| 45                            | 234,4 | 197,6  | 192,5     | 118,7 |       | 32,5   |       | 28,1      | 70,9    | 38,7    |
| 50                            | 268,4 | 217,9  | 210,1     | 129,3 |       |        |       | 30,8      | 79,7    | 43,2    |
| 55                            | 283,9 | 249,5  | 231,7     | 134,7 |       |        |       | 34,7      | 83,6    | 51,9    |
| 60                            | 309,1 | 262,3  | 252,1     | 145,3 |       |        |       | 41,1      | 89,9    |         |
| 65                            | 334,4 | 283,9  | 272,4     | 178,7 |       |        |       | 46,7      |         |         |
| 70                            | 360,9 | 716,3  | 292,7     | 193,3 |       |        |       | 58,7      |         |         |
| 75                            | 386,3 | 326,8  | 312,8     | 206,7 |       |        |       |           |         |         |
| 80                            | 412,9 | 345,9  | 333,1     |       |       |        |       |           |         |         |
| 85                            | 434,4 | 367,5  | 352,1     |       |       |        |       |           |         |         |
| 90                            | 485,5 | 386,3  | 373,7     |       |       |        |       |           |         |         |
| 95                            | 482,5 | 407,9  | 394       |       |       |        |       |           |         |         |
| 100                           | 509,2 | 428,1  | 415,5     |       |       |        |       |           |         |         |
| Moveable base lever           | 3     | 3      | 3         | 5     | 4     | 1      | 3     | 2         | 1       | 1       |
| weight of 1000 seeds in grams | 40    | 46     | 30        | 293   | 530   |        | 44    |           |         | 12      |

### 3.1.5. Check during sowing

The following checks should be carried out during sowing after each hectare sown.

- Look to check that no seed chute is blocked.
- Check that the quantity of seeds coming out of each drill is identical
- Manually check the sowing depth over the entire width of the machine

### 3.1.6. Operating advice

| <b><i>Problems</i></b>                                       | <b><i>Point to check</i></b>           | <b><i>Solutions</i></b>  |
|--|--|--|
| <i>Incorrect volume / ha</i>                                 | Adjustment and position of the tongues | Check that the tongues are operating correctly and that the tongue springs are correctly calibrated                    |
|  | Flow rate test                         | Check that no metered seed remains stuck in the pipes during the test  |
|  | Sun wheel drive                        | Ensure that the number of rotations of the sun wheel over 100m corresponds with the number given in the metering table |
| <i>The seed does not run from some of the drill elements</i> | Tube or hose tilt                      | Try to reduce bends as far as possible to facilitate the flow of seed.   |
|  | Drill units                            | Check that some of the drill units are not blocked   |
| <i>Irregular sowing depth</i>                                | Level of the DOM                       | The DOM must always work more or less horizontally   |
|  | Forward speed                          | The speed must be between 10 and 12 km/h to ensure regular work  |

## 3.2. SERVICING - MAINTENANCE



Comply with the safety instructions regarding servicing and maintenance. Your machine is designed and constructed for maximum yield, profitability and comfort under many different usage conditions. Your machine has been checked at the factory and by your dealer before its delivery to ensure that you receive a machine in perfect condition. To maintain it in good working condition, it is important that servicing and maintenance operations are performed at the recommended frequency.

In order to ensure your machine always operates correctly and to obtain optimum performance, you must clean and maintain it at regular intervals. The hydraulic components and bearings must not be cleaned with a high-pressure washer or directly hosed down. The units, screwed connectors and bearings are not watertight to VERY high pressure cleaning.

### 3.2.1. Servicing frequency

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The servicing frequency is determined by various factors. Thus, different usage conditions, the weather, driving and working speeds, dust and the type of soil, etc. affect the frequency, and the lubrication and maintenance products used also determine the time until the next servicing work is required.

The servicing frequency indicated is therefore only to be used as a reference. If you deviate from the normal conditions of use, you must adapt the frequency at which this maintenance and servicing is carried out to suit the conditions:

#### **1/ After the first 10 hours of use:**

- Check the tightness of the nuts and screws
- Check the hydraulic system (tightness and sealing)
- Check the tightness of the wheels
- Perform a complete diagnosis of the machine to ensure there are no elements causing problems
- Clean the soil off the machine

#### **2/ Every 50 hours of use**

- Check the tightness of the nuts and screws
- Check the hydraulic system (tightness and sealing)
- Check the tightness of the wheels
- Perform a complete diagnosis of the machine to ensure there are no elements causing problems.
- Lubricate the joints with greasers
- Clean the soil off the machine

### 3.2.2. Storage

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If the machine is not going to be used for an extended period:

- Store the machine under a roof if possible.
- Disconnect the electrical control devices and store them in a dry place.
- Protect the machine against rust. Only spray with oils that are easily biodegradable, e.g. rape oil.
- Unload the wheels.
- Protect the hydraulic cylinder piston rods against corrosion.

Do not spray plastic and rubber parts with oil or an anti-corrosion agent or these parts may become fragile and break.

#### **Cleaning**

Before folding the machine, the beam under the cylinder must always be cleaned.

A build-up of soil, stones or other obstacles can damage the cylinder.

Failure to comply with this instruction will invalidate the warranty.

### 3.2.3. Lubrication

---

|   |
|---|
| <b>The type of oil used in the variator is: SAE30</b> |
|---|

Lubricating the machine:

The machine must be lubricated regularly and after each pressure wash.

This keeps the machine in good working order and reduces the costs of repairs and downtime.

Hygiene:

Using lubricants and mineral products in line with the recommendations does not represent any risk to health. However, avoid prolonged contact with the skin or inhaling the vapours.

Handling lubricants

#### **WARNING:**

Protect yourself from direct contact with oils by wearing gloves or protective cream.

Carefully wash all traces of oil off your skin with soap and hot water. Do not clean your skin with petrol, diesel or other detergent products.

Oil is toxic. If you swallow oil, consult a doctor immediately.

- Keep lubricants out of reach of children.
- Never store lubricants in open containers or which do not have a label.
- Avoid your skin coming into contact with clothes that are soaked in oil. Change clothes when they are dirty.
- Do not keep cleaning cloths impregnated with oil in your pockets.
- Dispose of shoes impregnated with oil as dangerous waste.
- If oil splashes in your eyes, rinse with clean water and consult a doctor.
- Soak up spilt oil with a binder product and dispose of it.
- Never use water to extinguish fires caused by oil. Only use authorised, appropriate extinction products and wear breathing apparatus.
- Waste polluted by oil and used oil must be disposed of in line with current regulations.

Lubricate / grease the machine at the stated frequency.

Carefully clean the lubrication points and the grease pump before lubrication to avoid any dirt getting into the bearings. Drain contaminated grease out of the bearings and replace with new grease!

### 3.2.4. Lubrication

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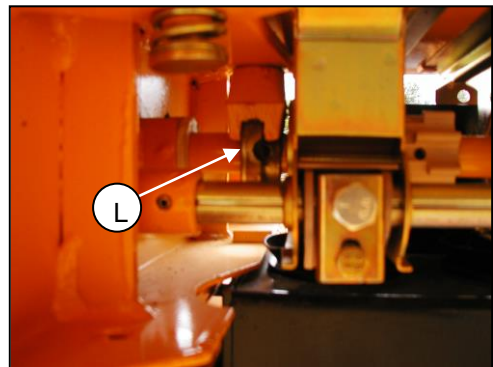
The cage rollers are attached using two self-aligning bearings with greasers.

To ensure the self-alignment operates correctly, the bearings must be greased at the start of each new season and then regularly throughout the season.

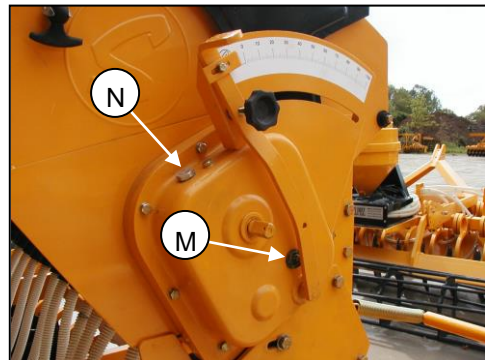
Use lithium grease reinforced with molybdenum disulphide / Grade NLG12. AGRISEM INTERNATIONAL may not be held liable if another type of grease is used.

The following points must be lubricated regularly:

- Narrow, wide positioning part (L)



- Check the oil level (M)
- Top up if necessary (N)



The batchers must not be lubricated.



### 3.2.5. Maintenance

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#### **- Hydraulic maintenance**

Risk of infection caused by the oil in the hydraulic circuit penetrating the skin under high pressure.

- Operations on the hydraulic circuit must only be performed by a specialised workshop.
- Depressurise the hydraulic circuit completely before carrying out any operations on it.
- Only use appropriate tools to look for leaks.
- Under no circumstances must you try to stop a leak in the hydraulic hoses with your hand or fingers.
- Liquid leaking under high pressure (hydraulic oil) can penetrate the skin and cause serious injury.
- In case of injury caused by hydraulic oil, consult a doctor immediately. Risk of infection.
- When connecting hydraulic hoses to the tractor's hydraulic circuit, ensure that the hydraulic circuits on the tractor and machine are not under pressure.
- Check that the hydraulic hoses are correctly connected.
- Check regularly that hydraulic hoses and connections are in good condition and are clean.
- Have the hydraulic hoses checked by a specialist at least once a year to ensure they are in good condition.
- Replace damaged or worn hydraulic hoses.
- Only use genuine AGRISEM hydraulic hoses.
- Hydraulic hoses must not be used for longer than six years, including a possible storage time of two years maximum. Even under appropriate storage and usage conditions in line with the permissible restrictions, it is completely normal for hoses and connectors to age, which is why they have a limited storage time and service life. Nevertheless, the duration of use can be established in line with empirical values, in particular taking into account potential risks. Other reference values can be taken into consideration for thermoplastic hoses and pipes.
- Dispose of used oil in accordance with current regulations. If this poses a problem, contact your oil supplier.
- Keep hydraulic oil out of reach of children.
- Ensure that you do not contaminate the soil or water with hydraulic oil.

#### **After 10 hours of service, and then every 50 hours of service**

1. Check that all the components in the hydraulic circuit are sealed.
2. If necessary, tighten screwed connectors.

#### **Before each time the machine is started**

1. Visually check the hydraulic hoses for faults.
2. Remove any friction points on hydraulic hoses and tubes.
3. Replace damaged or worn hydraulic hoses immediately.

Inspection criteria for hydraulic hoses.

For your own safety, comply with the following inspection criteria.

Replace hydraulic hoses if you notice any of the following when examining them:

- Deterioration of the outer layer down to the lining (e.g. friction points, cuts, splits).
- Embrittlement of the outer layer (formation of cracks on the outer layer).
- Distortions which do not correspond to the natural shape of the hose or pipe, whether or not they are under pressure or under flexion (e.g. separation of the layers, bulges, crushed areas, bending).
- Areas that are leaking.
- Damage or distortion of the end fitting (reducing sealing). Slight superficial damage does not

require replacement.

- Hose becoming detached from the end fitting.
- Corroded end fitting leading to reduced solidity and function.
- Non compliance with mounting specifications.
- Exceeding the 6-year usage period. The following information is essential: the date of manufacture of the hydraulic hose marked on the end fitting, to which you must add 6 years. If the date of manufacture indicated on the connector is "2004" the usage period will end in February 2010. See the "Marking of hydraulic hoses" section for further information.

#### Fitting and removing hydraulic hoses

When fitting and removing hydraulic hoses, the following instructions must be strictly adhered to:

- Only use genuine AGRISEM hydraulic hoses.
- Pay particular attention to cleanliness.
- You should always fit hydraulic hoses so that in all operating conditions,
  - ✓ They are not subject to traction, apart from that caused by their own weight.
  - ✓ No short lengths are flattened.
  - ✓ There are no external mechanical actions on the hydraulic hoses.
  - ✓ Avoid hoses rubbing against parts of the machine or against each other by arranging and attaching them correctly. Protect hydraulic hoses with protective sheaths if necessary. Cover parts with sharp edges.
  - ✓ The authorised bending radius are not exceeded.
- If hydraulic hoses are connected to moving parts, measure the length of the hose to ensure that the total range of movement is not less than the smallest authorised bending radius and/or that the hose is not subject to traction.
- Attach hydraulic hoses at the places intended for this purpose. In this respect, avoid supports that may hinder the natural movement of the hose and modifications to the length.
- Hydraulic hoses must not be painted.

#### **Wear ring maintenance:**

Some joints on AGRISEM tools have wear rings. These must be changed as soon as at the first sign of lateral clearance.

#### **Tyre maintenance:**





The tyres must always be inflated to a pressure adapted to their use. It may be necessary to adapt the pressure between the road and the field. The average pressure of all Flexi-Pack tyres is 2.5 bars.

### 3.2.6. Disks

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⇒ The disks must be replaced as soon as their diameters reach the values given below.

AGRISEM INTERNATIONAL cannot be held liable if the DISC-O-SEM is used with disks showing wear greater than that specified above.

| Disk diameter   | Maximum wear diameter |
|---|-----------------------|
| <br>Ø 460  | Ø 400                 |
| <br>Ø 510  | Ø 440                 |
| <br>Ø 560  | Ø 480                 |
| <br>Ø 610 | Ø 520                 |

AGRISEM INTERNATIONAL cannot be held liable if the DISC-O-SEM is used with disks showing wear greater than that specified above.

### 3.2.7. Lighting system

Always check that your lighting system is in full working order, clean and operational before driving on the road.



**Never set out on the public highway if one of these elements is not operating correctly.**

Replacing bulbs:

1. Unscrew the protective glass.
2. Remove the faulty bulb.
3. Fit the replacement bulb (ensure voltage and amperage are correct).
4. Refit the protective glass and screw up.



**THE LIGHTING IS REMOVABLE, IT IS ESSENTIAL TO REMOVE IT BEFORE WORKING.**

It is essential to remove the lighting board when using the DISC-O-SEM in the field.

As the lighting board is designed solely for transport, AGRISEM INTERNATIONAL cannot be held liable if the lighting board breaks due to being used during work.

Using the DISC-O-SEM correctly ensures work on crops takes place safely under optimum conditions. It is the user's responsibility to decide and assume sole responsibility for all risks linked to incorrect use or inappropriate use of the DISC-O-SEM.

AGRISEM INTERNATIONAL cannot be held liable under any circumstances in the event of soil damage and a result which does not correspond to the intended aim where the usage and safety instructions have not been complied with.





## WARRANTY CLAIM FORM N°

|  |          |  |                 |                |                |  |
|--|----------|--|-----------------|----------------|----------------|--|
| Dealer's name :  |          |  |                 |                | Dealer's stamp |  |
| File followed by :   |          |  |                 |                |                |  |
| Date of purchase of the machine :  |          | N° Invoice AGRISEM   |                 |                |                |  |
| Customer's name and address :  |          |  |                 |                |                |  |
| Delivery date : <i>(join a copy of invoice and dealer's delivery note)</i>                         |          |  |                 | Area of farm : |                |  |
| Serial Number of the machine :   |          |  | Working width : |                |                |  |
| Description of the equipment combination (make and type):  |          |  |                 |                |                |  |
| Type of tractor used :   |          |  | Horse Power :   |                |                |  |
| Model of tractor :   |          |  |                 |                |                |  |
| Detailed description and presumed causes of incident :   |          |  |                 |                |                |  |
| Date of problem :  |          | Date present :   |                 |                |                |  |
| Reference of Defective part  | Quantity | Désignation  | Price List      | Coef SAV       | TOTAL (€)      |  |
|  |          |  |                 |                |                |  |
|  |          |  |                 |                |                |  |
|  |          |  |                 |                |                |  |
|  |          |  |                 |                |                |  |
|  |          |  |                 |                |                |  |
|  |          |  |                 |                |                |  |
| Pictures attached : <input type="checkbox"/> YES   |          | Parts returned : <input type="checkbox"/> YES<br><i>Freight costs paid by the sender</i> |                 |                |                |  |
| The warranty is limited to replacement of defective parts excluding reparation of all other damage |          |  |                 |                |                |  |

## RESULT OF AGRISEM INTERNATIONAL EVALUATION

|  |  |             |  |
|--|--|-------------|--|
| Comments :   |  |             |  |
| Date :   |  | Signature : |  |
| The after-sales service technician   |  |             |  |
| <a href="mailto:yoann.jaunasse@agrisem.com">yoann.jaunasse@agrisem.com</a> |  |             |  |







