

OPERATOR'S MANUAL TITANIUM



 **J.assy**

Resolution 680 - Anatel:

This equipment is not subject to protection against harmful interference and must not interfere with duly authorized systems.

For more information visit Anatel's website:

www.anatel.gov.br



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TITANIUM



J. Assy's **TITANIUM** mechanical seed meter offers a high rate of seed distribution and effectively reduces the presence of doubles and crop failures:



Cotton



Peanut



Canola



Beans



Sunflower



Corn



Soybean



Sorghum

VISOR



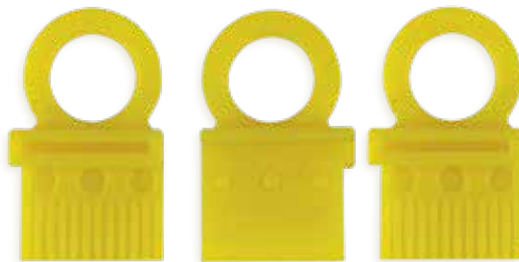
Makes the unit's seed disc visible while in motion, allowing operators to select the ideal disc and dosing ring, in addition to monitoring performance during planting.

FLEXBRUSH ROLLER



Dispenses seeds that do not exit the unit through the force of gravity. The Flexbrush's point of contact is configured to reduce friction and mechanical damage to seeds.

POLIFLOW WIPERS



Organizers that secure seeds in holes fitted into seed disc, reducing the number of doubles that are dispensed, failures and minimizing mechanical damage.

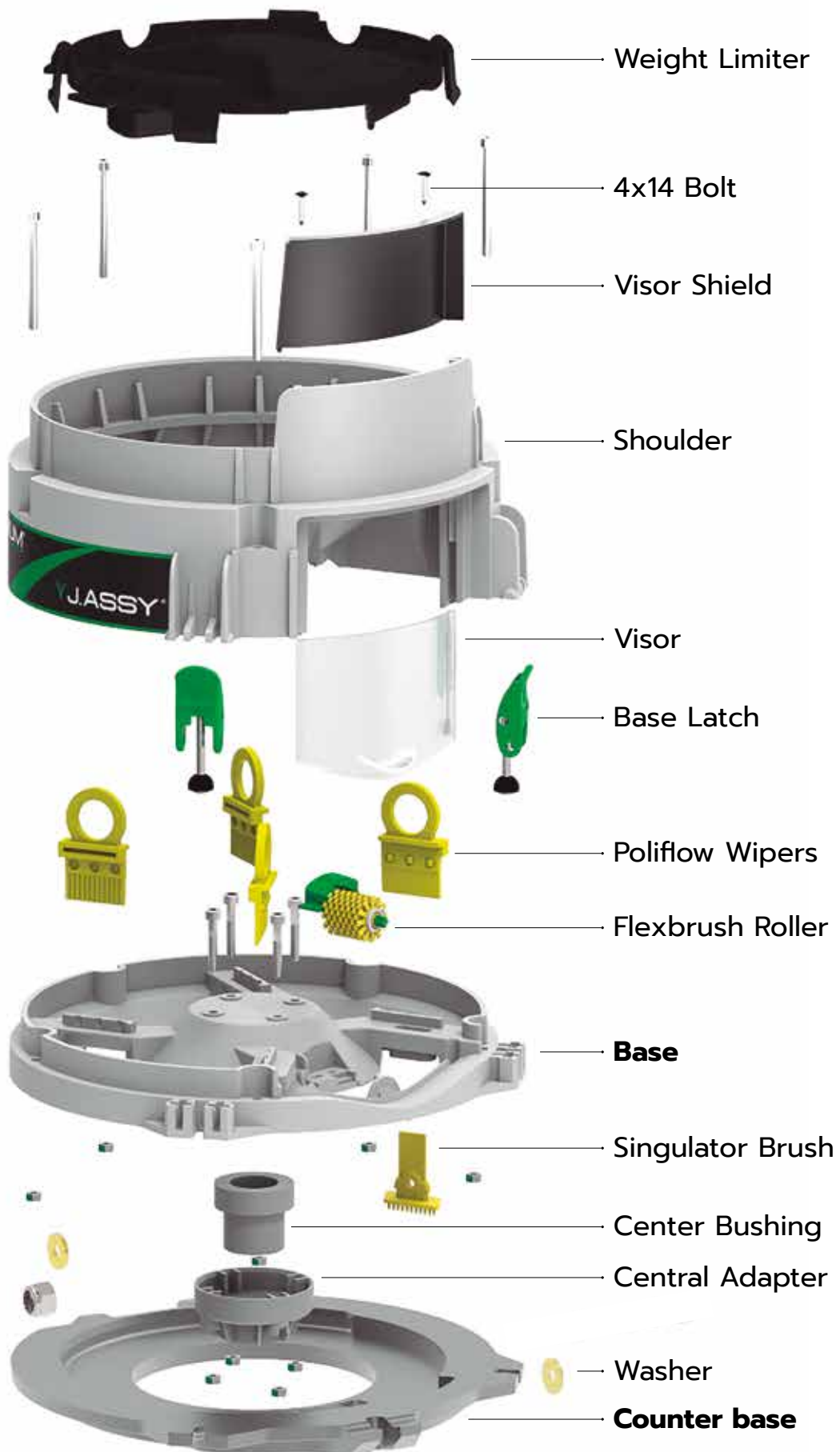
SINGULATOR BRUSH

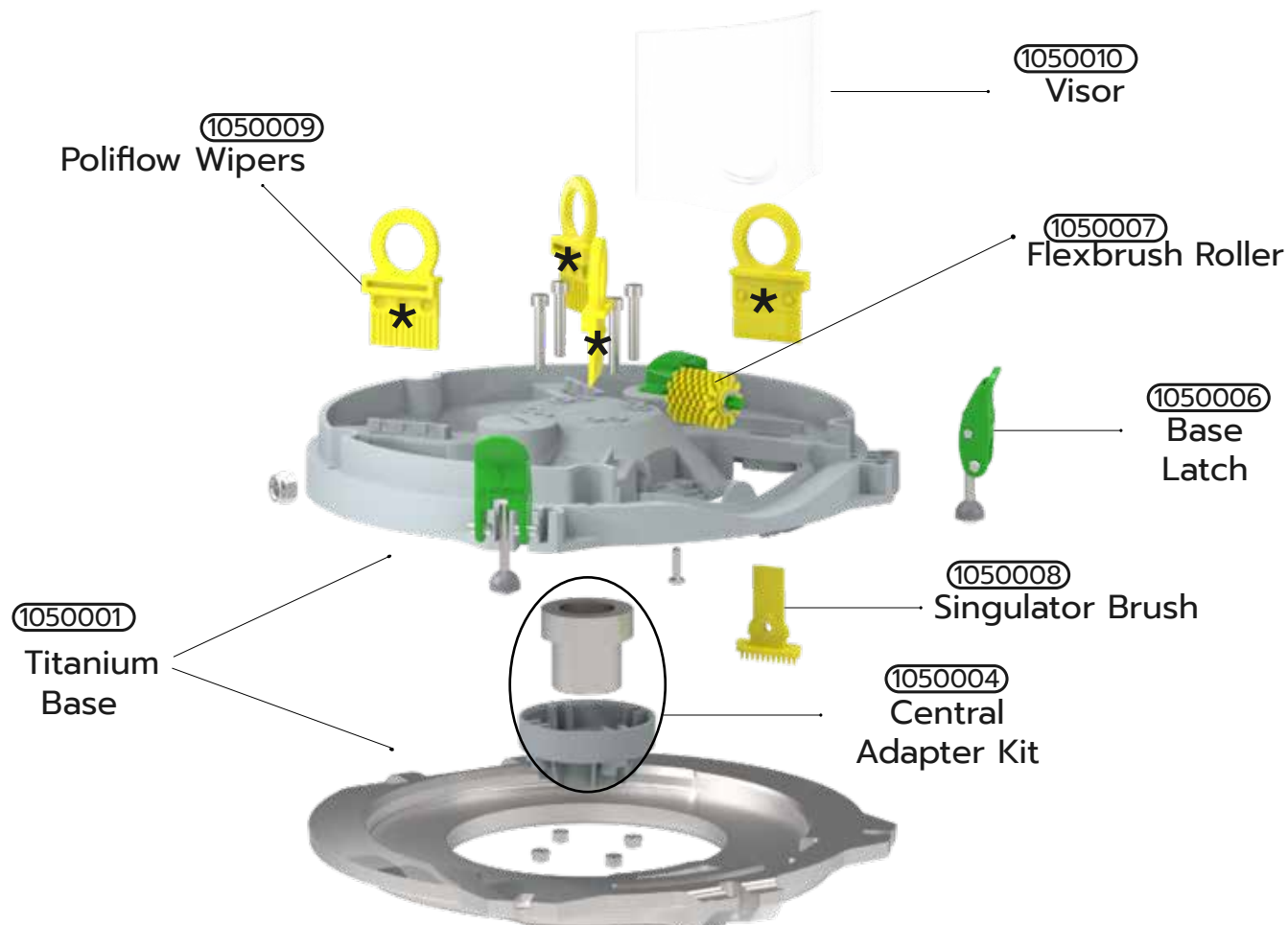


Singulator Brush

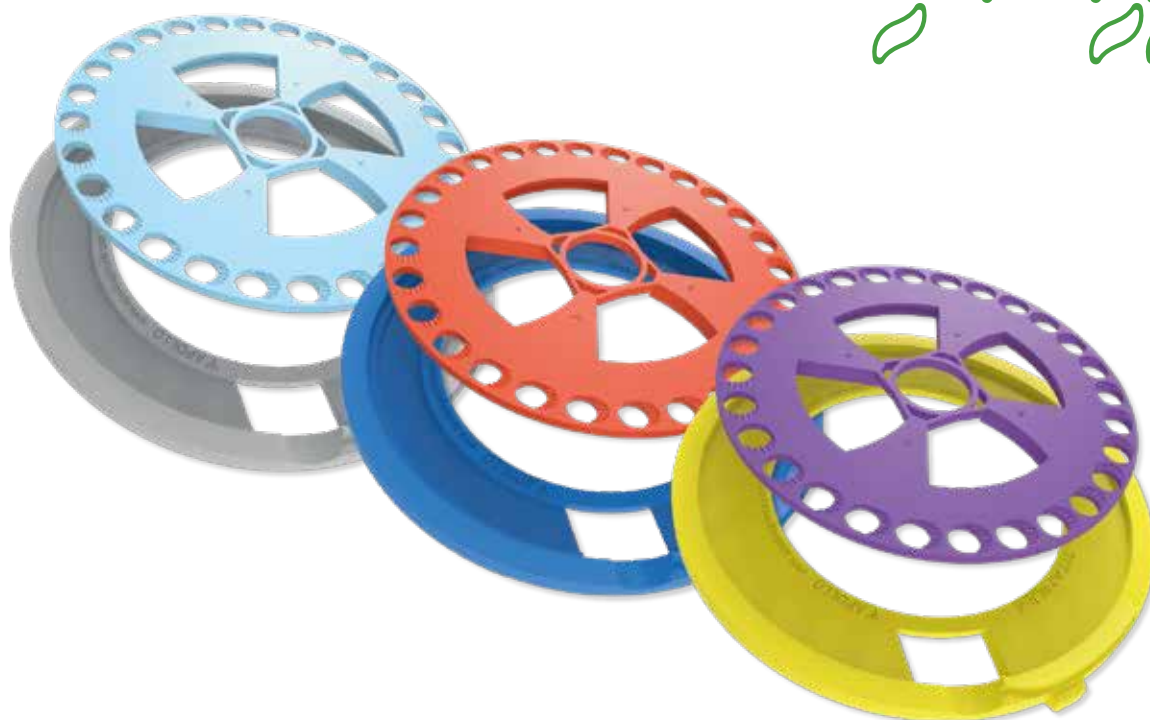
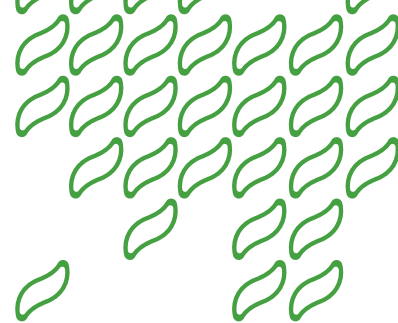
Secures seeds in the holes after final organization phase to prevent skipping due to irregularities in soil.

Titanium Components



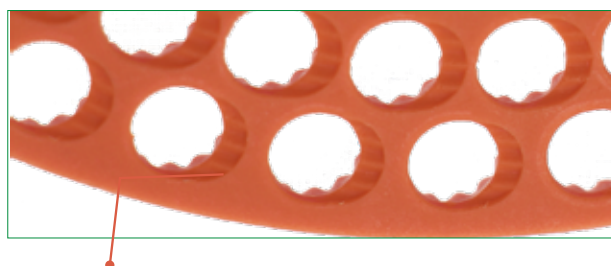


Seed Discs and Runners



Crop selection

A unique seed disc kit is provided for each crop. Discs are fitted with Rampflow technology, through which undulated sections in hole ramps enhance the flow of the seeds, preventing the presence of doubles and equipment faults. Selecting the appropriate disc runner is also essential to proper equipment operation. Runners adjust the unit's height to ensure that the disc rotates perfectly inside the seed meter and seeds are therefore properly distributed.



Exclusive RAMPFLOW technology that reduces the presence of doubles and failures by up to 60%

Seed Discs and Disc Runners Chart

SOYBEAN

Lilac Seed Disc $\phi 9.0$ Thick. 5.5 mm		
FORMAT • 45 holes 56 holes	FORMAT •• 64 holes 90 holes	FORMAT ••• 135 holes

Lilac Disc Runner Thick. 3 mm SMOOTH

Purple Disc Runner Thick. 3 mm 0.8 RECESS

Orange Seed Disc $\phi 8.0$ Thick. 4.5 mm		
FORMAT • 45 holes 56 holes	FORMAT •• 64 holes 90 holes	FORMAT ••• 135 holes

Orange Disc Runner Thick. 4 mm SMOOTH

Orange Disc Runner Thick. 4 mm 1.0 RECESS

Yellow Seed Disc $\phi 7.3$ Thick. 4.5 mm		
FORMAT • 45 holes 56 holes	FORMAT •• 64 holes 90 holes	FORMAT ••• 135 holes

Yellow Disc Runner Thick. 4 mm SMOOTH

SORGHUM

45-hole Seed Disc Thick. 2.5 mm		
Gray $\phi 6.0$	FORMAT •	
Dark blue $\phi 5.2$	FORMAT •	
Dark brown $\phi 4.5$	FORMAT •	
Light blue $\phi 4.0$	FORMAT •	

90-hole Seed Disc Thick. 2.5 mm		
Gray $\phi 6.0$	FORMAT ••	
Dark blue $\phi 5.2$	FORMAT ••	
Dark brown $\phi 4.5$	FORMAT ••	
Light blue $\phi 4.0$	FORMAT ••	

Disc Runner Thick. 6.5 mm
White SMOOTH

PINTO BEANS

56-hole Seed Disc Thick. 4mm		
Beige 11x8	FORMAT ••	
Light brown 12x9	FORMAT ••	
Dark brown 13x9	FORMAT ••	

CORN

28-hole Seed Disc Thick. 4mm		
Light orange 15.5x11.5	FORMAT •	
Red 14.5x10.0	FORMAT •	
Green 13.5x9.0	FORMAT •	
Salmon pink 12.5x8.5	FORMAT •	
Gray 12.3x9.4	FORMAT •	
White 11.5x8.5	FORMAT •	
Pumpkin orange 11.0x8.0	FORMAT •	
Light orange $\phi 15.0$	FORMAT •	
Red $\phi 14.0$	FORMAT •	
Beige $\phi 13.5$	FORMAT •	
Lilac $\phi 13.0$	FORMAT •	
Light blue $\phi 12.5$	FORMAT •	
Orange $\phi 12.0$	FORMAT •	
Light green $\phi 11.5$	FORMAT •	
Blue $\phi 11.0$	FORMAT •	
Pink $\phi 10.5$	FORMAT •	
Yellow $\phi 10.0$	FORMAT •	
Beige $\phi 9.5$	FORMAT •	
Lime green $\phi 9.0$	FORMAT •	
Purple $\phi 8.0$	FORMAT •	

SUNFLOWER | CORN

PINTO BEANS

Disc Runner Thick. 4mm		
Yellow SMOOTH		
Green RECESS 1.0		
Gray RECESS 1.6		
Blue RECESS 2.0		
Dark blue RECESS 2.5		

COTTON

108-hole Seed Disc Thick. 5.5 mm		
Blue $\phi 7.2$	FORMAT ••	
Green $\phi 6.5$	FORMAT ••	

108-hole Seed Disc Thick. 5 mm		
Green $\phi 6.5$	FORMAT ••	

BEANS

50-hole Seed Disc Thick. 4mm		
Black 11x16	FORMAT ••	
Red 15x15	FORMAT ••	
Beige 10x14	FORMAT ••	
Salmon pink 9x14	FORMAT ••	
Green 9x13	FORMAT ••	
Gray 9x12	FORMAT ••	
White 9x11	FORMAT ••	

Disc Runner Thick. 4.5 mm		
Yellow SMOOTH		
Green 1.5 RECESS		
Black 2.5 RECESS		

SUNFLOWER

24-hole Seed Disc Thick. 5 mm		
Salmon pink 6x7	FORMAT •	
Light orange $\phi 6.5$	FORMAT •	
Orange $\phi 7.0$	FORMAT •	
Pumpkin orange $\phi 7.5$	FORMAT •	
Red $\phi 9.0$	FORMAT •	

PEANUT

56-hole Seed Disc Thick. 10 mm		
Blue $\phi 17.0$	FORMAT ••	
Red $\phi 15.5$	FORMAT ••	

60-hole Seed Disc Thick. 10 mm		
Orange $\phi 14.0$	FORMAT ••	

60-hole Seed Disc Thick. 9 mm		
Yellow $\phi 13.0$	FORMAT ••	

Thick. 10 mm		
Natural color SMOOTH		

CANOLA

128-hole Seed Disc Thick. 2 mm		
Red $\phi 2.8$	CARREIRA ••	

Disc Runner Thick. 7 mm		
Red SMOOTH		

Mounting TITANIUM onto Planter

In order to guarantee proper operation of the TITANIUM seed meter and a long service life, it is recommended that precautions be taken when regulating the pressure exerted on the seed box's fastening latch. The TITANIUM must be **well-fastened (without excessive pressure)** so that the box is securely attached and does not cause vibration and warping, which reduces efficiency during operation of the TITANIUM unit.

Proper fastening of the equipment is shown in the following photos:

Step 1



Step 2



Step 3

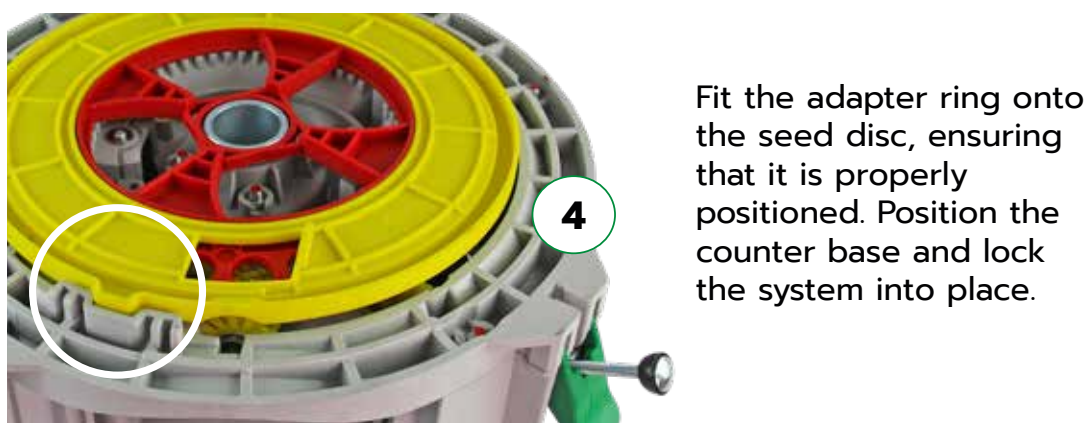
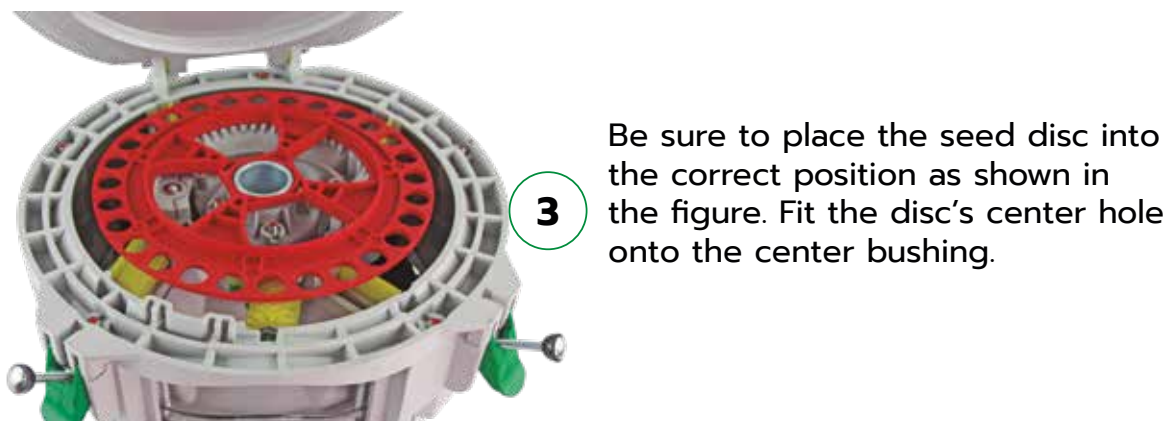
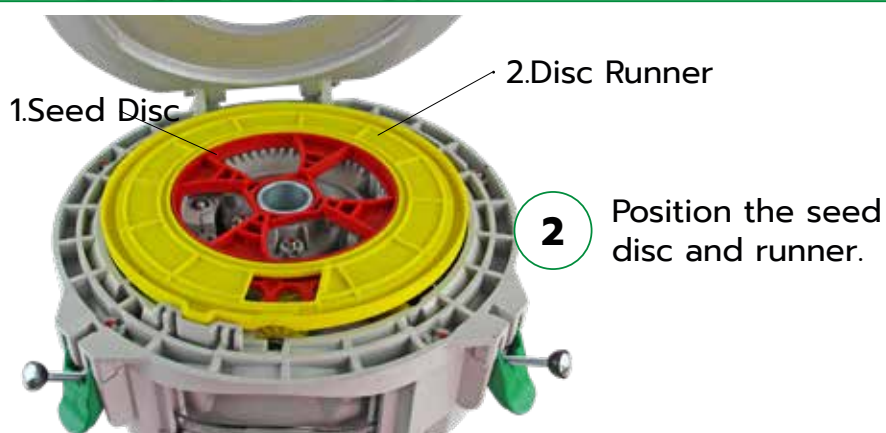
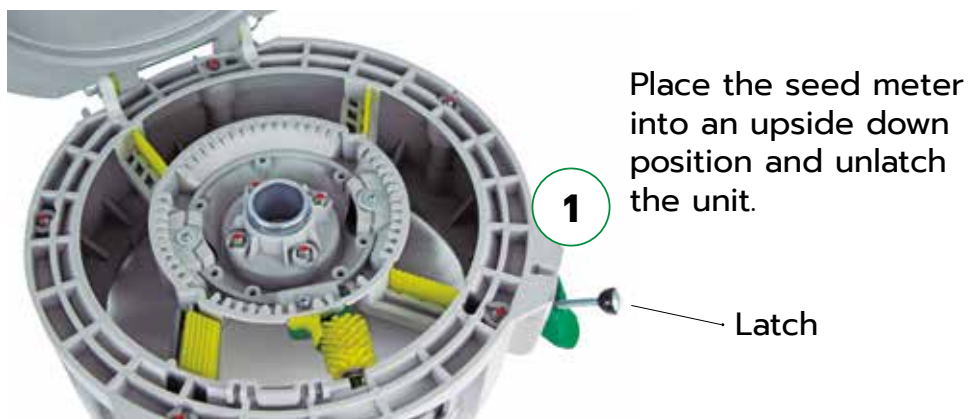


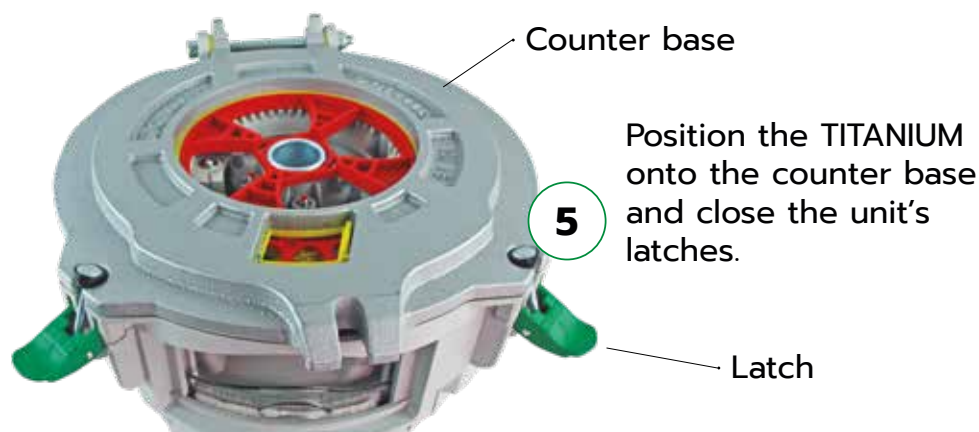
Step 4



Installation of Seed Discs and Disc Runners

Use the following steps to ensure that the seed disc and runner unit are properly inserted into the seed meter:





PRECAUTIONS TO BE TAKEN WHEN CLOSING TITANIUM UNITS

The following steps must be taken when experiencing difficulty in closing the TITANIUM seed meter:

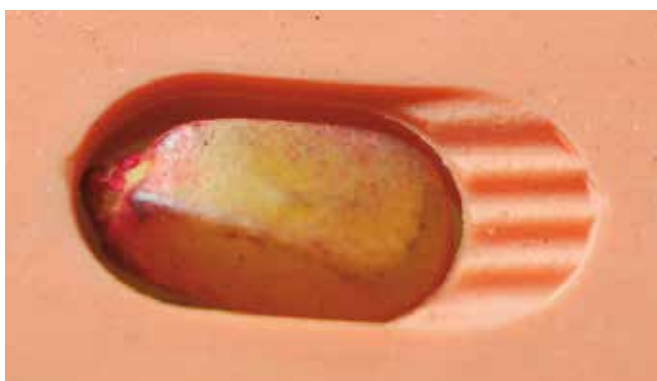
- 1 Make sure the seed disc and runner are positioned correctly.
- 2 Check the TITANIUM's counter base for dirt. Clean as indicated in the operator's manual.
- 3 Adjust latches in order to facilitate opening of the TITANIUM seed meter and allow the unit to be lightly fastened when closed.
- 4 Do not leave latches loose, which may directly influence plantability due to gaps in the seed disc and runners.

Preparing for Planting

1. SELECTING SEED DISCS AND RUNNERS

Due to the wide range of available seed types and formats, J. Assy has developed seed disc and runner models that are specific to each crop.

In order to ensure a high level of quality in planting, when selecting a disc, it is important to verify whether seeds:



are **securely positioned in the seed disc's holes** in order to ensure that two seeds are not placed into the same hole and **do not become lodged in place**.



do not extend past the surface of the seed disc.



IMPORTANT

When the appropriate seed disc is selected, seeds will be securely positioned in the provided holes and will not extend above the disc's surface.

Selecting the correct SEED DISC



Example using CORN SEED DISC



Seeds properly positioned.



Seeds fit too tightly into holes in seed disc or are larger than the provided holes.



Example using SOYBEAN SEED DISC



Seeds properly positioned.



Seeds fit loosely into holes and presence of doubles.



Example using SORGHUM SEED DISC



Seeds properly positioned.

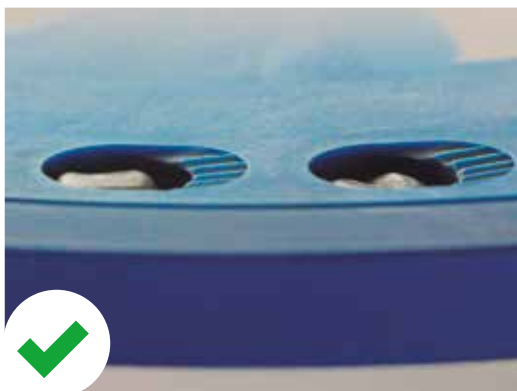


Seeds fit loosely into holes and presence of doubles.

Selecting the correct DISC RUNNER



Example using CORN DISC RUNNER



Seeds positioned near the edge of the unit. Exposed seeds.



Example using SOYBEAN DISC RUNNER



Seeds positioned near the edge of the unit. Exposed seeds.

2. PLANTING SPEED

To prevent damage to the product and loss of planting efficiency, it is important that the planting speed recommended by the planter's manufacturer be used.

3. USE OF GRAPHITE



The use of **graphite** is **essential to proper operation of the system, as well as ideal distribution of seeds**, which reduces the presence of doubles and faults, broken seeds and wear and tear on the system.



ATTENTION.

See recommendations from the graphite's manufacturer in order to ensure that the correct amount of graphite is used.

Never mix graphite with treatment products, as liquid treatment agents compromise the graphite's lubricating effect.






Mix graphite into a homogeneous substance of equal parts.



Do not exclusively spray graphite onto the top of the seeds. Graphite must be evenly distributed across the seeds' surface.

REPLACING TITANIUM COMPONENTS

FLEXBRUSH ROLLER	POLIFLOW WIPERS	SINGULATOR BRUSH
		

It is important to emphasize that certain factors contribute to the premature wear and tear of the unit's FLEXBRUSH, POLIFLOW and SINGULATOR BRUSH components, such as a lack of graphite and improper selection of the seed disc and runner. When damaged, these parts become less effective and may negatively affect planting.

REPLACING THE FLEXBRUSH ROLLER

1. The TITANIUM'S FLEXBRUSH must be replaced using a N. 2 Phillips head **screwdriver** .



2. Turn the FLEXBRUSH in a counterclockwise direction as shown in the above figure. Lift the brush's back face in a diagonal position.



The side of the bracket must fit into the unit's base.

Flexbrush presenting signs of wear. Replacement needed.



Replacing the TITANIUM's POLIFLOW WIPERS

1. The unit's POLIFLOW WIPERS may be replaced manually or using universal pliers. Remove the weight limiter.

Image of the unit's Poliflow Wipers being removed.



2. Pull the POLIFLOW using your fingers or pliers.

When placing a new POLIFLOW wiper into the unit, make sure it is properly positioned. Lower the POLIFLOW until the face of the wiper and the base touch (yellow and gray), as shown in the image below:



POLIFLOW WIPERS
presenting signs of wear.
Replacement needed.

Replacing the TITANIUM's SINGULATOR BRUSH

1. Use universal pliers to replace the unit's Singulator Brush, as shown in the image below:



2. Using a pair of pliers, lower the SINGULATOR BRUSH into the unit's base and pull upwards until it is firmly positioned.



SINGULATOR BRUSH
presenting signs of wear.
Replacement needed.



Replacing SEED DISCS and RUNNERS after each new planting cycle

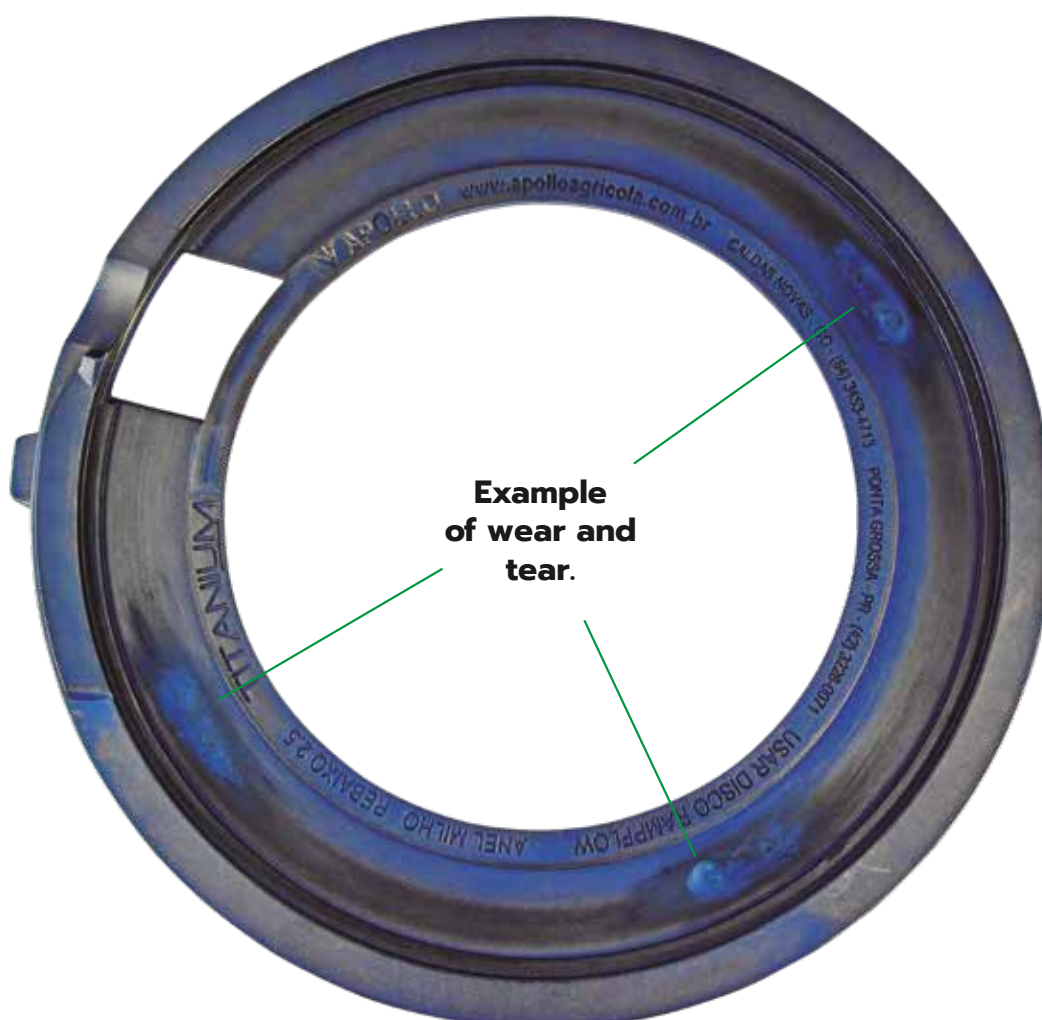
Operating the TITANIUM without graphite, improper seed disc/runner selection and service hours directly influence wear in the unit's seed disc and runner.



IMPORTANT

In order to maintain a high level of excellence and efficiency in the TITANIUM seed meter, the unit's seed disc and runner must be replaced with each new planting cycle.

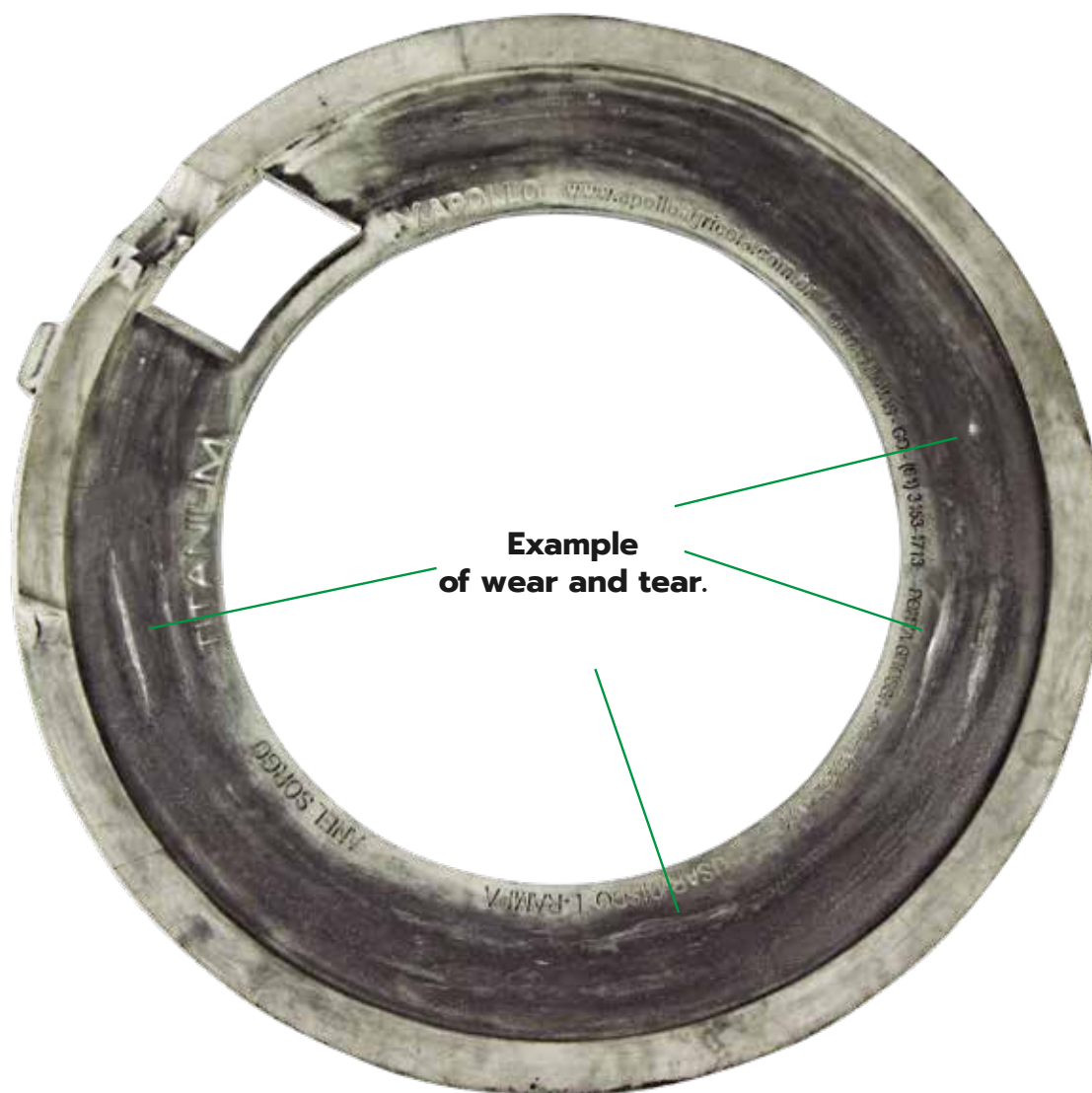
After tests were performed, it was concluded that wear may increase the presence of doubles in a single disc hole. **An example of wear is shown in the image below:**



Wear may result in the presence of doubles (two seeds in the same disc hole).

Replacing SEED DISCS and RUNNERS after each new planting cycle

Example of wear in DISC RUNNER.



Visible wear in this area that **may result in the presence of doubles** (two seeds in the same disc hole).

FAQ | Frequently Asked Questions

1. The unit's FLEXBRUSH has become stuck in place due to a wrapped brush. How can I remove it from this position?

In extreme cases the FLEXBRUSH may become tangled. It is therefore important to always verify whether the component is operating correctly through the unit's visor. If a brush becomes stuck, remove the wire, verify whether the FLEXBRUSH is in proper working condition and, if necessary, replace the brush before continuing planting.

2. With regards to the treatment of seeds, are there any limitations to use of the TITANIUM seed meter?

Yes. The application of oil-based treatments and liquid inoculants, directly into the seed box can greatly compromise the system's plantability.

3. Can I perform planting at higher speeds with the TITANIUM seed meter?

No. The speed recommended by the planter's manufacturer must always be used. The TITANIUM seed meter was developed to improve plantability. One of the main factors that compromises plantability is a high level of speed.

4. Can I carry out planting without graphite?

No. Planting must never be carried out without graphite. Graphite is used to lubricate the system, preventing mechanical damage and reducing wear in seed discs and runners.

5. Can graphite be applied during seed treatment?

No. Seed treatment processes must be completed first. The application of graphite represents the final process stage before the start of planting.

6. Can graphite powder be replaced with inert talc when using the machine?

No. Graphite must never be replaced or used in a smaller amount than that indicated, as it is used to lubricate the system and ensure that seeds are properly distributed.

7. I have begun planting soybeans and have observed broken seeds through the unit's visor. What should I do?

Broken seeds are sign of insufficient use of graphite or improper seed disc and runner selection.

8. Can I perform inoculation directly in the Titanium seed meter's seed box?

No. Liquid inoculants compromise operation of the distribution unit.

9. Can the TITANIUM be operated without its weight limiter?

No, the limiter prevents excessive weight in the reservoir to ensure that seeds are properly distributed. The unit may only be operated without its limiter when J.Assy Seed Reservoir (Hopper) is used.

SEED RESERVOIR | HOPPER

SEED HOPPER PIPOQUEIRA

The TITANIUM's Seed **Reservoir** (Hopper) offers a compact and resistant 6-liter design. The Seed Reservoir facilitates **the flow of seeds** and **the replacement of seed discs and runners**.



SEED RESERVOIR COMPONENTS



360° Nozzle

Attached to rigid hose*, in order to prevent bending (bulging), allowing supply to be cut, as well as the **complete flow** of the seeds from the unit's central box.

*When purchasing a Seed Hopper, a nozzle that can be adapted to the hose used with the unit must be chosen.

Installation

Adaptation or the installation of holes in the unit is not necessary when the Seed Hopper is used with the Titanium Mechanical Seed Meter.*

* Assembly exclusive to Titanium.

Highly Resistant Design

J. Assy's Seed Reservoir is extremely durable and waterproof and made from the same raw materials used in the Titanium. The unit prevents rainwater and dust from entering the seed meter.

The following nozzles are available:



360° nozzle
for use with **3"**
hose

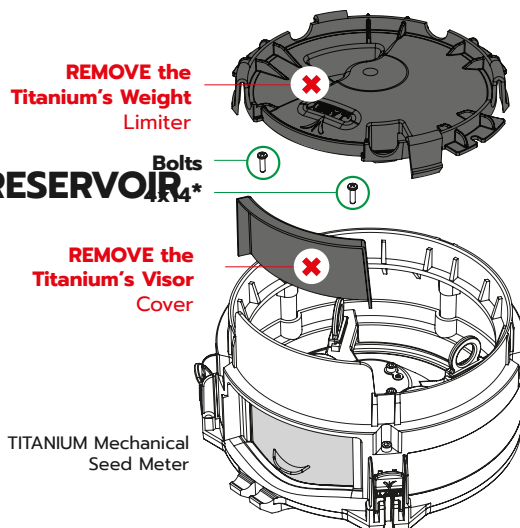


360° nozzle
for use with **2.5"**
hose

BEFORE

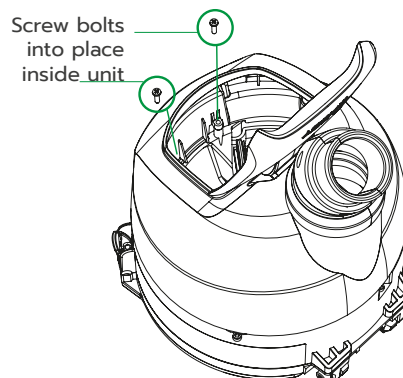
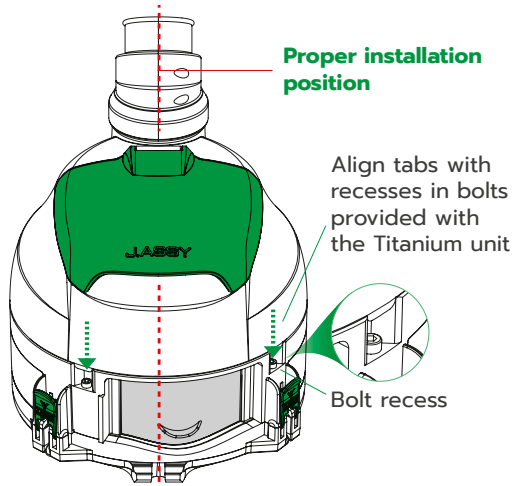
INSTALLING THE UNIT'S SEED RESERVOIR

- 1** Remove the Titanium's weight limiter, the two installed Phillips 4x14* bolts and the visor cover.
*Set the unit's 4x14 bolts aside for use in **STEP 3**.



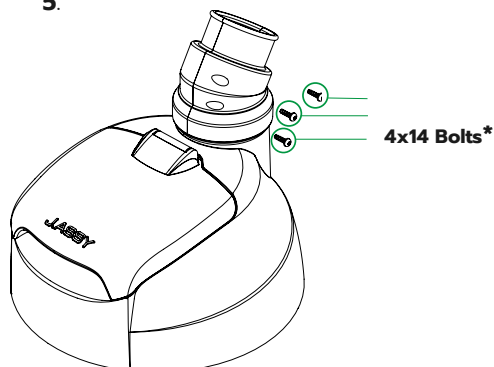
INSTALLING THE SEED RESERVOIR ONTO THE TITANIUM

- 2** Align the Seed Hopper's tabs with the recesses in the Titanium's bolts and place them into a vertical position until they snap into place, producing a "click" sound.
- 3** Open the Seed Hopper's cover and position the **two 4x14 Phillips bolts** previously removed from the Titanium's visor cover).

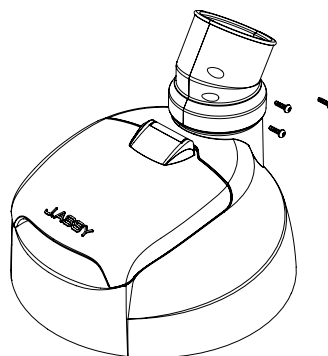


REPLACING THE SEED HOPPER'S NOZZLE

- 4** Loosen the three provided 4x14 Phillips bolts * and remove the old nozzle.
*Set the unit's 4x14 bolts aside for use in **STEP 5**.



- 5** Position the new nozzle and **three 4x14 Phillips bolts** taken from the previously used nozzle.



Obs.: the equipment cannot be guaranteed to protect against rain after the nozzle is replaced.

Your Seed Hopper is ready for use!

Product Disposal

Equipment must be forwarded to the nearest J.Assy reseller or the implement assembler at the end of its service life, if acquired through a direct purchase.



J.Assy's Quality Policy

"Provide quality products and services that exceed our customer's expectations to ensure compliance with legal and technical requirements and the development and manufacture of reliable products that can be considered true design masterpieces, through the use of innovative technological solutions, investment in research and personnel while guaranteeing a high level of productivity and continuous improvement."

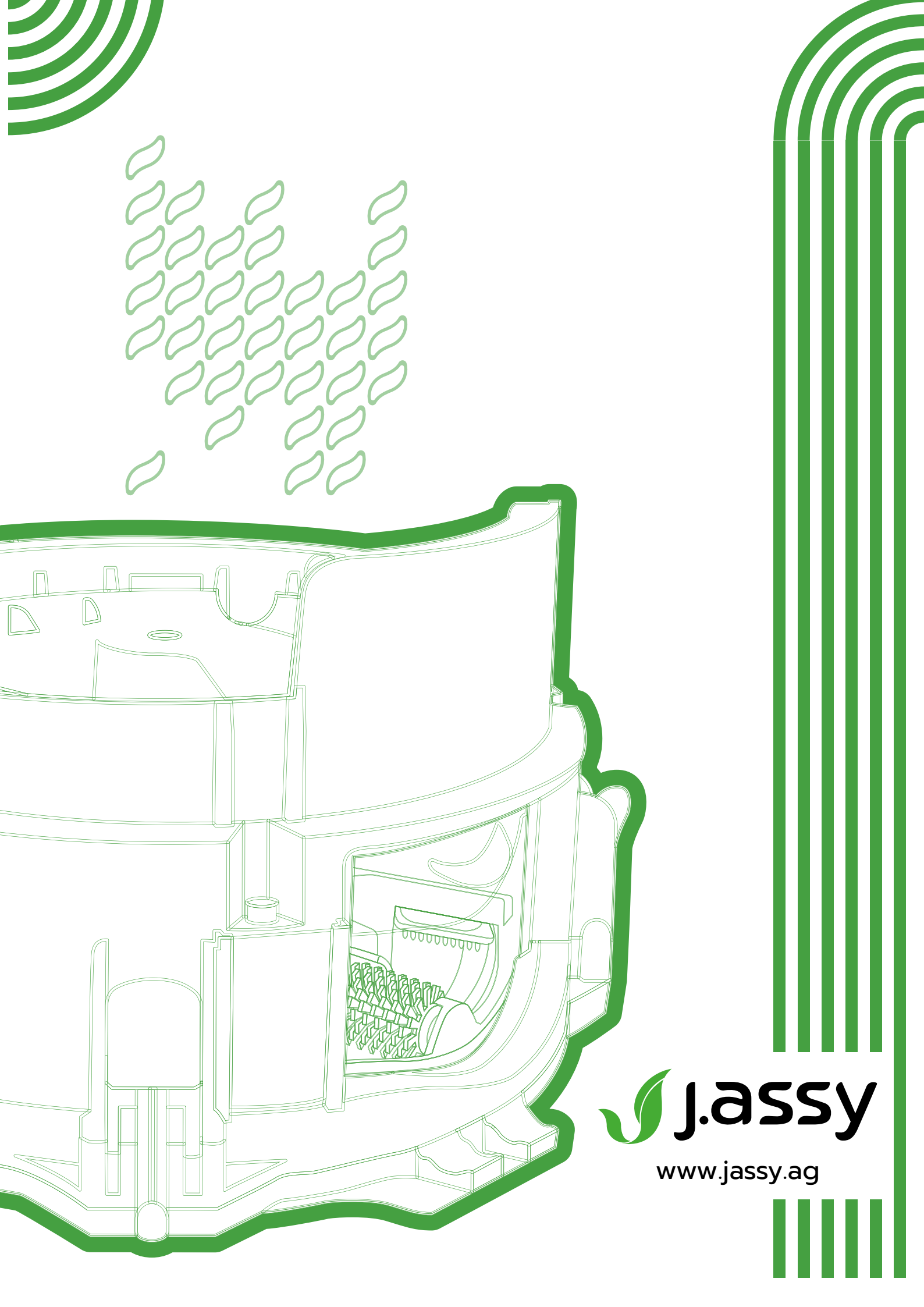


After the contained in this manual have been completed,
your TITANIUM seed meter will be ready for use in
planting.

PLEASE CONTACT A J. ASSY SALES REPRESENTATIVE OR
RESELLER IN YOUR REGION WITH ANY QUESTIONS OR
CONCERNS, OR ACCESS THE WEBPAGE:

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