

# USER MANUAL

## MECHANICAL SEED METER

TITANIUM®

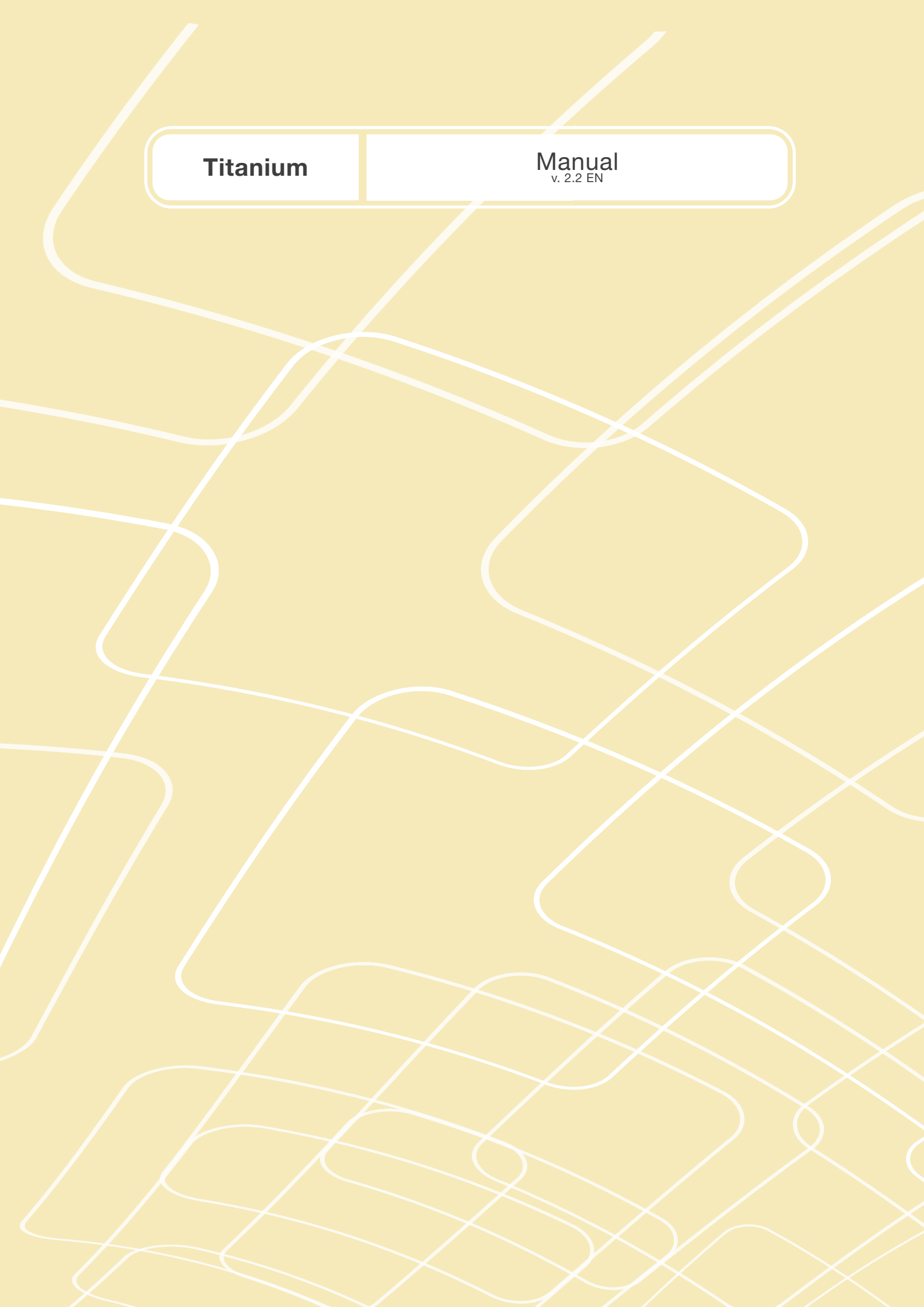








**J.ASSY**

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**Titanium**

**Manual**  
v. 2.2 EN



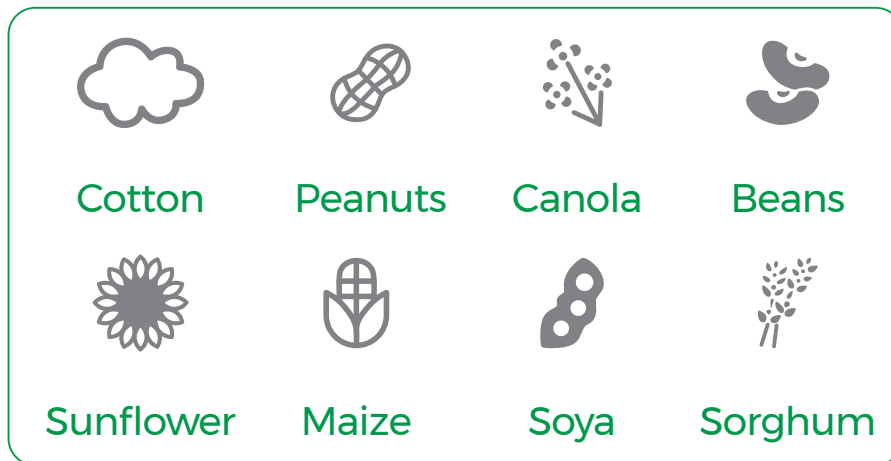
	<b>Introduction</b> .....	04
	Components of the TITANIUM .....	06
	<b>Installation</b> .....	07
	1. Mounting the TITANIUM onto the planter.....	07
	2. Correctly inserting the seed disc & disc runner .....	08
	3. Care when closing the TITANIUM.....	09
	<b>Preparation for planting</b> .....	10
	1. Correct selection of seed discs & disc runners .....	10
	2. Planting speed .....	12
	3. Use of graphite powder .....	13
	<b>Maintenance</b> .....	14
	The importance of maintenance.....	14
	FLEXBRUSH roller.....	14
	POLIFLOW wipers .....	15
	ANTIBOUNCE brush .....	16
	Replacing worn seed discs & disc runners .....	18
	Cleaning the TITANIUM .....	19
	<b>Problem &amp; trouble shooting</b> .....	21
	<b>Additional accessories</b> .....	22
	Available seed discs and disc runners .....	23



# Introduction



The advanced technology of the TITANIUM seed meter almost eliminates the chances for skips or double seeds during planting. The TITANIUM also reduces the possibility of cracking or damaging seeds.

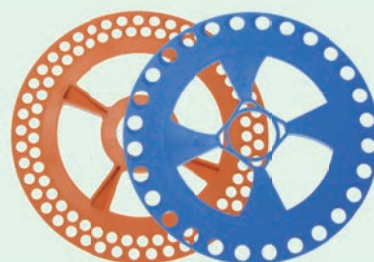


To ensure optimal efficiency of the TITANIUM, only use Apollo seed discs.



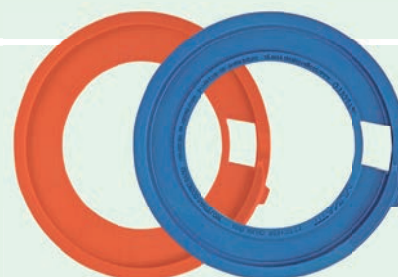
Front - Soya Disc

**APOLLO RAMPFLOW®**



Apollo seed discs for maize and soya with Rampflow technology

It is important to notice that the Apollo disc runners are exclusive to the TITANIUM meter. Other disc runners will not be compatible.



Apollo runners

## INSPECTION WINDOW



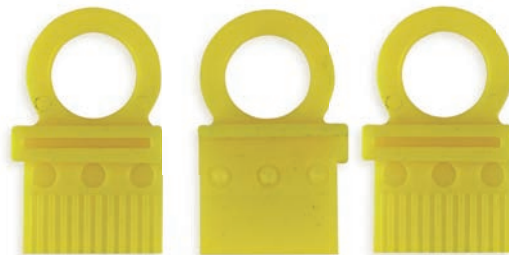
The inspection window allows the user to observe the seed disc in motion. This feature is essential during setup and allows the meter's performance to be checked during planting.

## FLEXBRUSH ROLLER



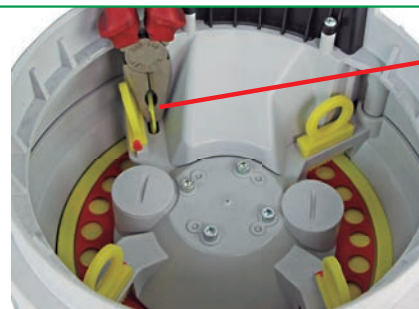
The roller ejects seeds from the seed disc that would not fall out by gravity alone. The roller ensures constant contact with the disc but is flexible not to cause damage to the seeds.

## POLIFLOW WIPERS



The wipers ensure each hole is filled with seed. It also scrapes out double seeds. The flexibility reduces seed damage.

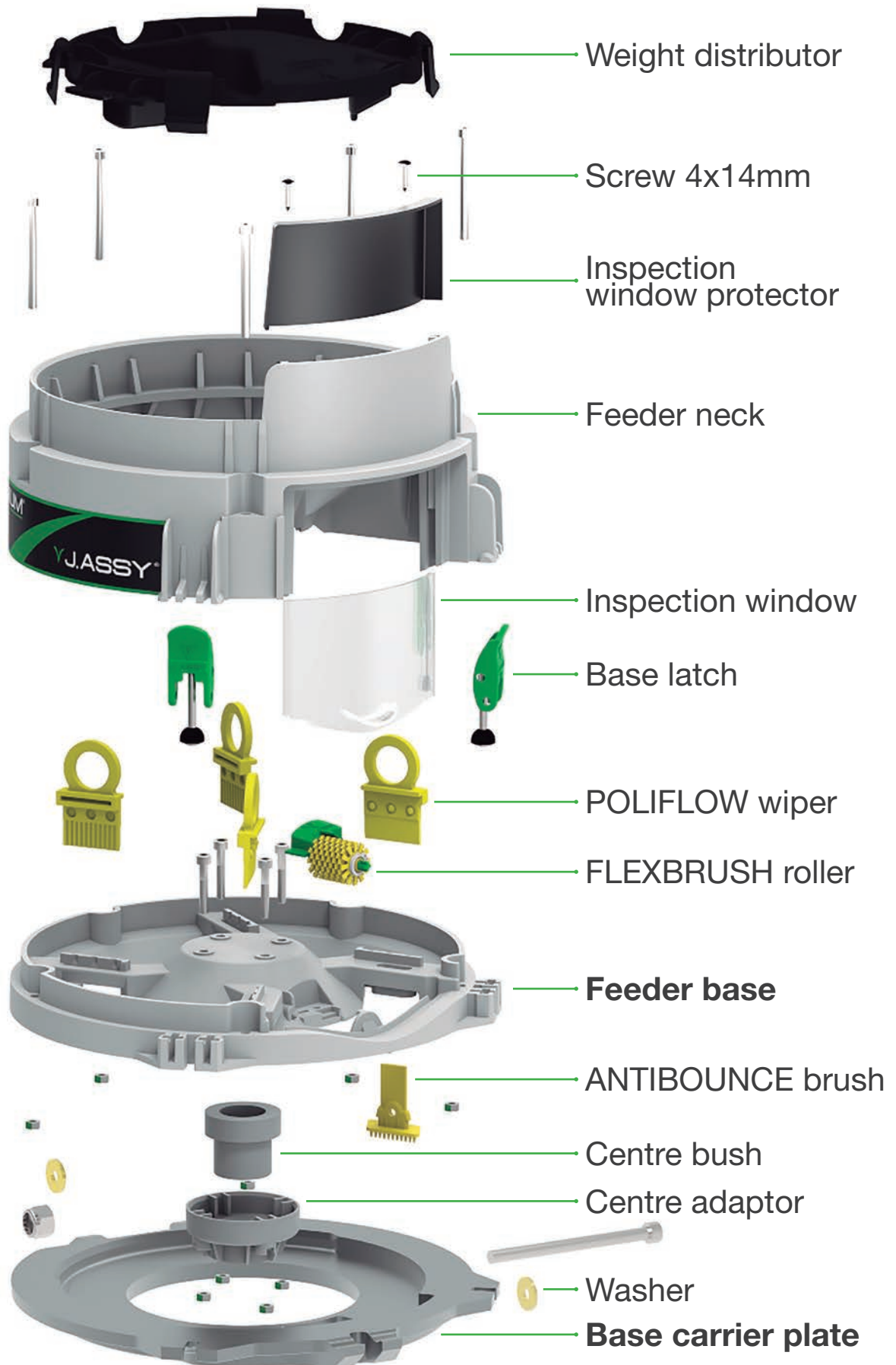
## ANTIBOUNCE BRUSH



Antibounce brush

Keeps the seed in the place during the last rotational stage. The brush prevents the seed from bouncing out of the seed disc when the planter works in rocky soils.

## Components of the TITANIUM



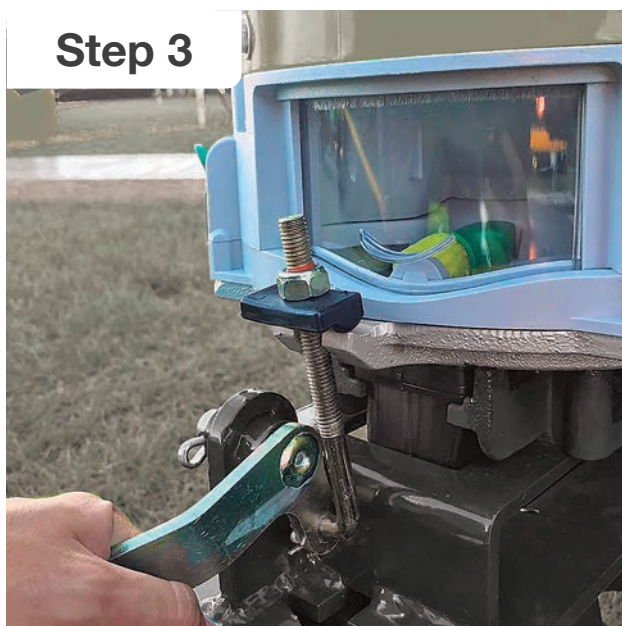
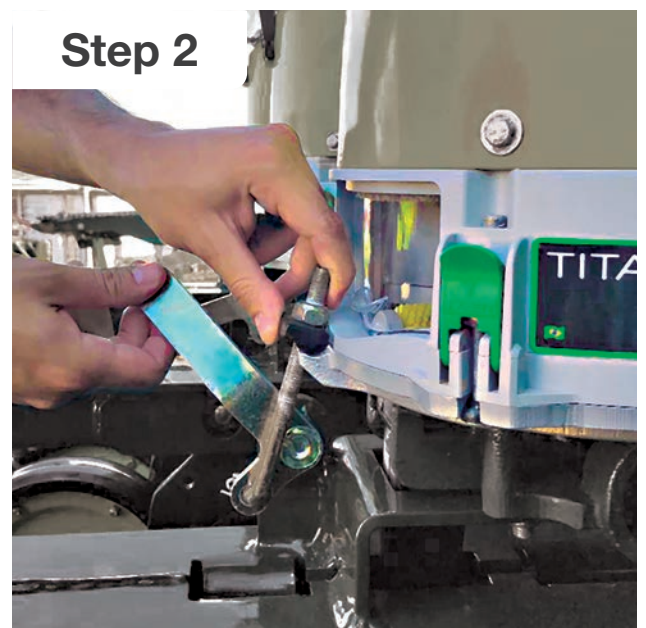
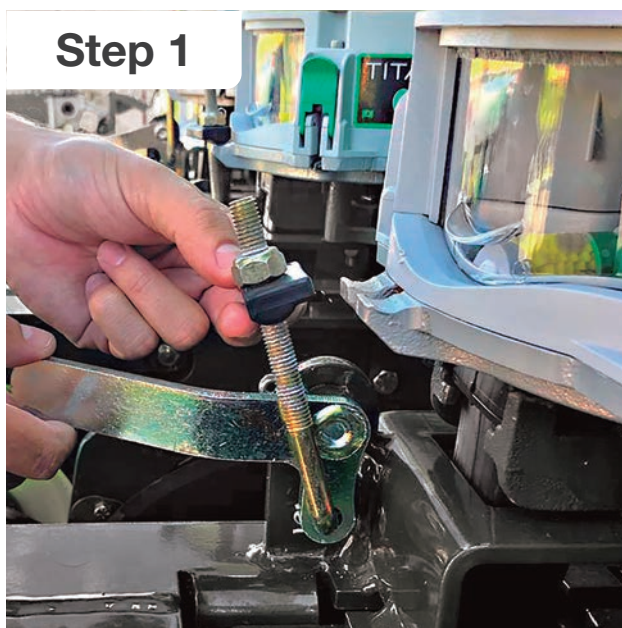


# Installation

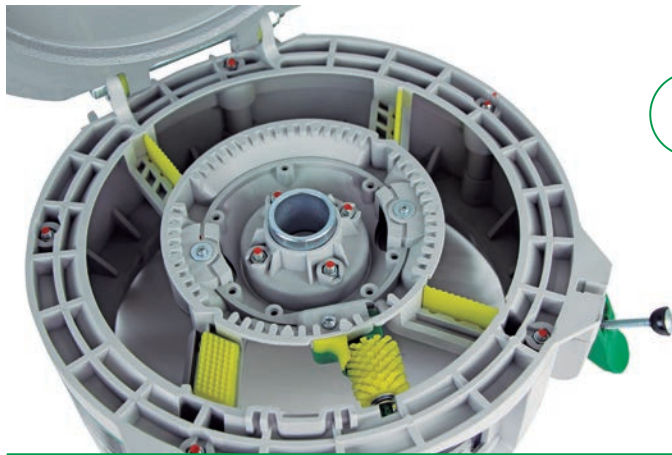
## 1. MOUNTING THE TITANIUM ON THE PLANTER

For optimal service life of the TITANIUM meter it is highly recommended to take care when tightening the hold down clamp. A loose fit will result in unnecessary vibration and bounce of the meter and over-tightening will bend the base. In both cases the performance of the meter will be compromised.

Follow the steps illustrated below:



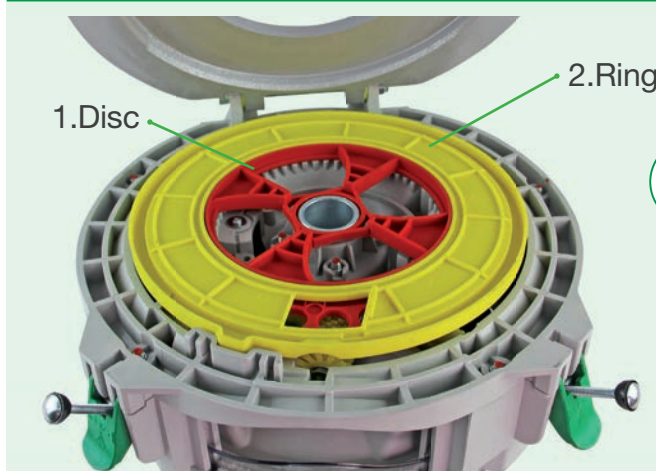
## 2. CORRECT METHOD TO INSERT THE SEED DISC AND DISC RUNNER



1

Place the meter upside down and open the latches.

Latch

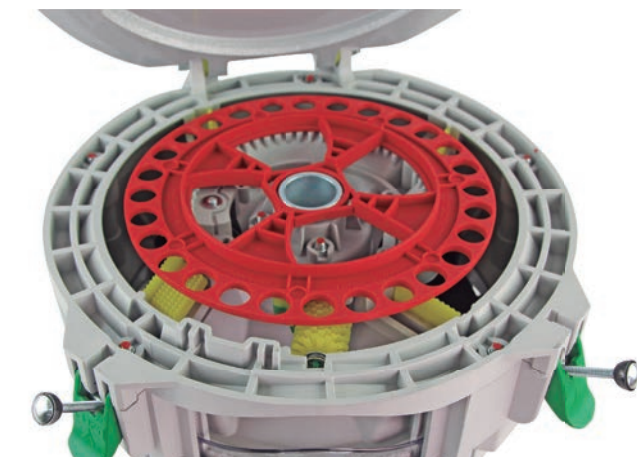


1. Disc

2. Ring

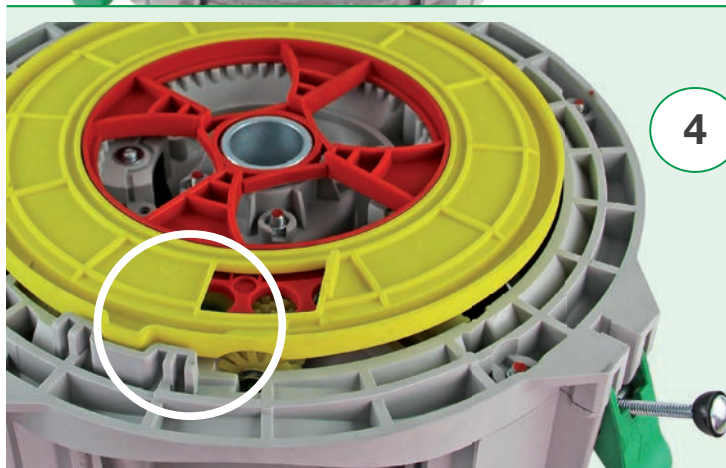
2

Place the seed disc and disc runner into position.



3

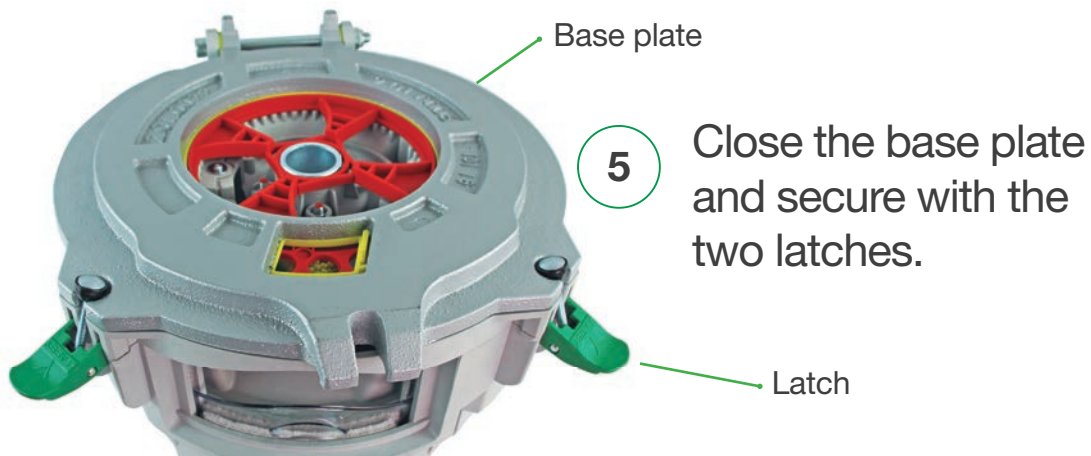
Ensure that the seed disc is in the correct position. **Fit the centre hole of the disc around the centre bushing.**



4

**Place the disc runner into place.** Ensure that the indentation seats inside the allocated space in the meter body.





### 3. TAKE NOTE WHEN CLOSING THE TITANIUM

When you experience difficulties to close the TITANIUM meter follow these steps:

- 1 Ensure that the seed disc and disc runner is positioned correctly.
- 2 Look for dirt between the base plate and the meter body. If any, follow the cleaning procedure indicated in the manual.
- 3 Adjust the latches, ensuring easy opening and providing soft grip when closing.
- 4 Never leave the latches loose. This will result in the incorrect clearance for the seed discs and disc runners and have a negative effect while planting.





# Preparation for planting

## 1. SELECTING THE CORRECT SEED DISC AND DISC RUNNER

Due to the wide variety of shape sizes of different crops, we have developed multiple seed discs and disc runners specifically for each crop.

To guarantee the best performance of the TITANIUM, it is important to observe the following features of your seed when choosing the correct seed disc:



That the seed fits comfortably in the hole with no additional space for a second seed or that the seeds get stuck.



**The seed does not stick out** above the seed disc surface.

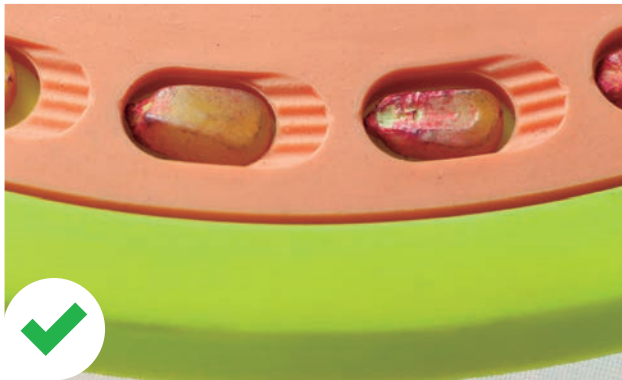
### **Important:**

When choosing the correct disc, the seeds will fit comfortably in the holes and do not stick out above the disc surface.

## Selecting the correct disc



### Example with maize



Seed fits correctly



Seeds fit too tight and seeds are too large for the holes



### Example with soya beans



Seed fits correctly



Seeds are too loose in the holes. Double seeds occur.



### Example with sorghum



Seed fits correctly

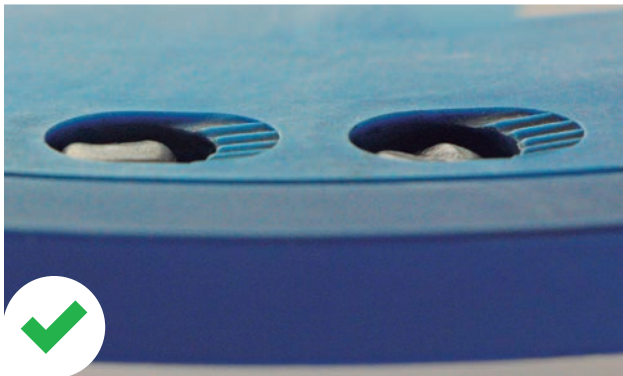


Seeds are too loose in the holes. Double seeds occur.

## Selecting the disc runner



### Example with maize



Seeds are just below the disc surface



Runner is too shallow, seeds stick out above seed disc surface.



### Example with soya beans



Seeds are just below the disc surface



Runner is too shallow, seeds stick out above seed disc surface.

## 2. PLANTING SPEED

High planting speeds on rocky soils resulting in heavy row unit bounce will have a negative influence on the accuracy of the TITANIUM. Please take care not to exceed a reasonable planting speed especially in uneven terrain.

### 3. USE OF GRAPHITE POWDER



The use of graphite powder is fundamental for optimal operation of the TITANIUM meter. It is essential to ensure accurate seed spacing. This dry lubricant reduces the number of skips and double seeds, broken seeds and decreases the wear and tear of the components.

 **Attention:**

Consult your graphite powder supplier for the correct quantity to use.

Never mix graphite powder in with seed before any seed treatment is applied. Liquids will remove the lubricant function of the graphite.



Ensure the graphite is mixed into seed evenly before planting.






Do not just sprinkle the graphite powder on the seed and start planting.



# Maintenance

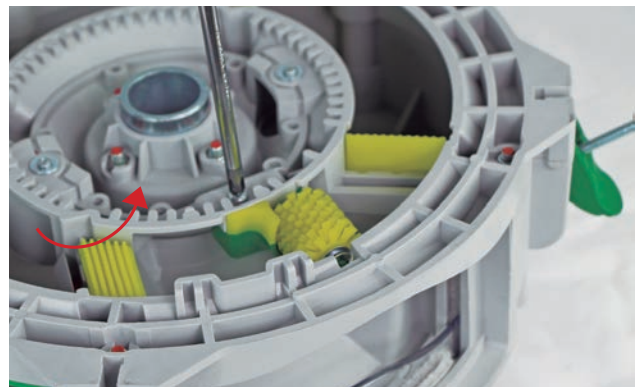
## THE IMPORTANCE OF REPLACING PARTS AND HOW TO DO IT

FLEXBRUSH	POLIFLOWS	ANTIBOUNCE
		

It is important to note that the following factors will contribute to the premature wear of the FLEXBRUSH, POLIFLOWS and ANTIBOUNCE: Lack of graphite and the incorrect selection of seed discs and disc runners. This will have a negative effect on the planting accuracy.

### How to replace the FLEXBRUSH

1. Use a Phillips 02 screwdriver to loosen the screw.



2. Rotate the FLEXBRUSH counter clockwise as indicated. Lift the rear diagonally.



The support should seat in groove of the body.

This worn **FLEXBRUSH** should be replaced.



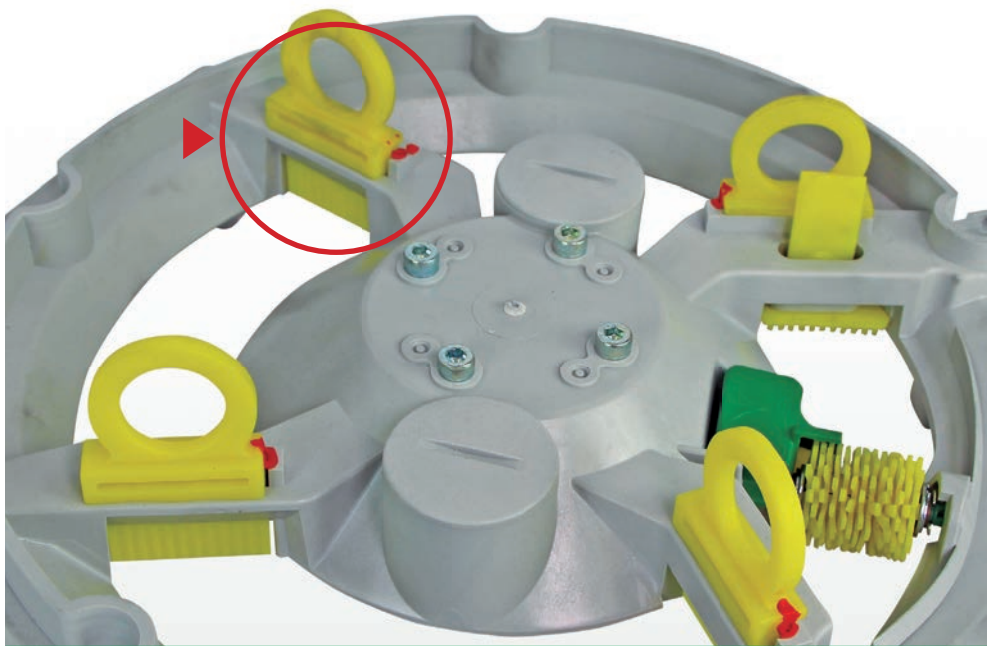
## How to change the POLIFLOW

1. First remove the weight distributor. The replacement can be done by hand or with normal pliers.

How to remove the POLIFLOW.



2. Take note of the orientation of the existing Poliflow. Pull out the Poliflow. Insert the new Poliflow into position, the shoulder of the Poliflow should be on the grey surface of the housing.



This worn out **POLIFLOW** should be replaced.

## How to replace the ANTIBOUNCE brush

1. Use pliers to remove the Antibounce brush as shown.



2. Insert the new Antibounce brush from the bottom and pull it up with pliers until it seats firmly in place.



This worn **ANTIBOUNCE** brush should be replaced.





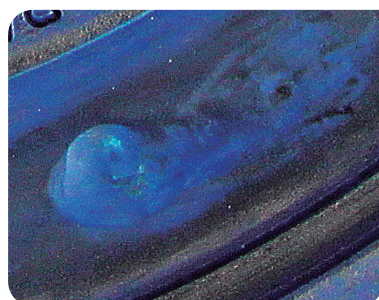
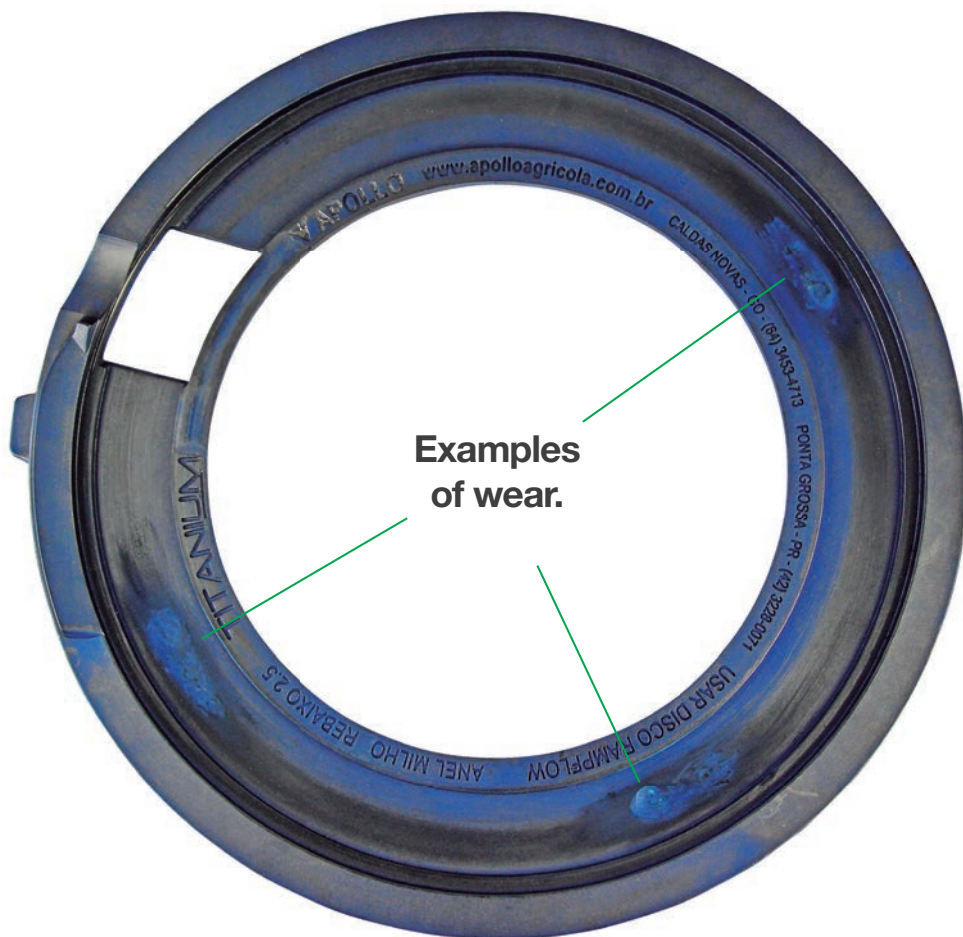
## Inspect the discs & runners before a new planting season.

The lack of graphite powder, the incorrect selection of seed discs and disc runners and a long duty cycle have direct influence on excessive wear of the discs and runners.

### **Important:**

To maintain the accuracy of the TITANIUM meter, replace any worn seed discs and disc runners before a new planting season.

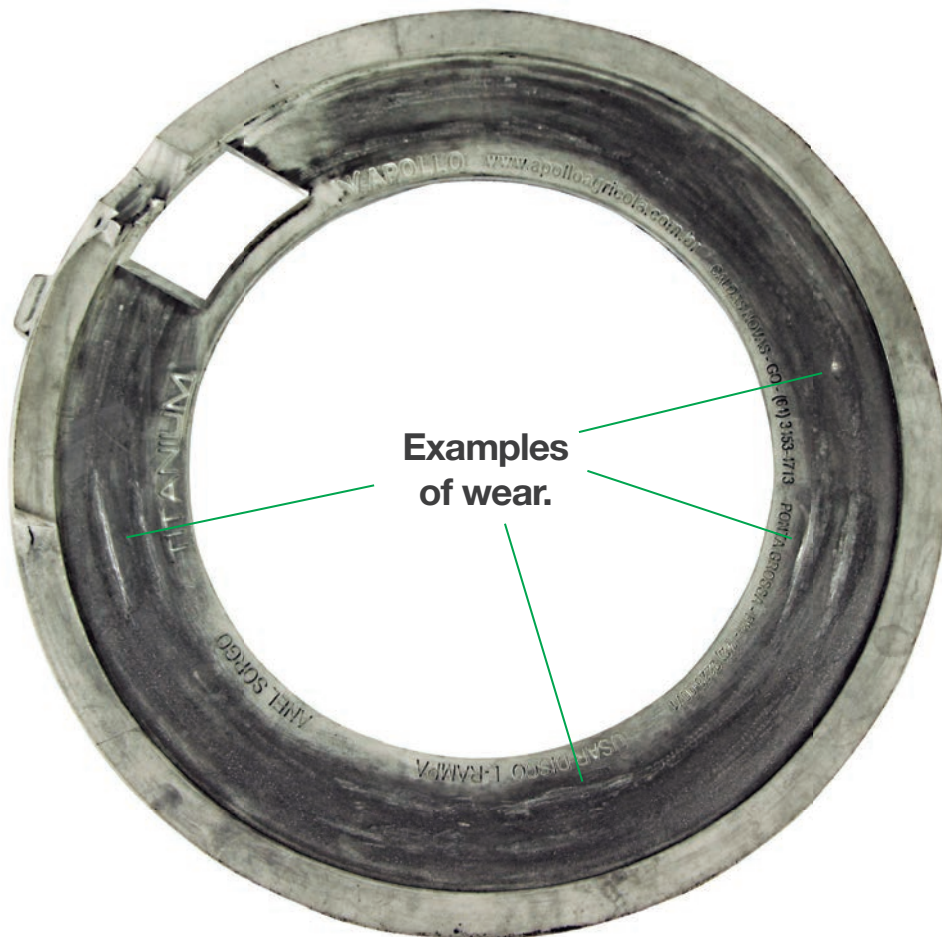
Tests have proven that a worn-out runner will increase the number of double seeds dropped from one hole. See image below:



Wear can cause irregular seed singulation.

**Replace seed discs and disc runners when worn.**

Example of a worn runner.



**Examples  
of wear.**

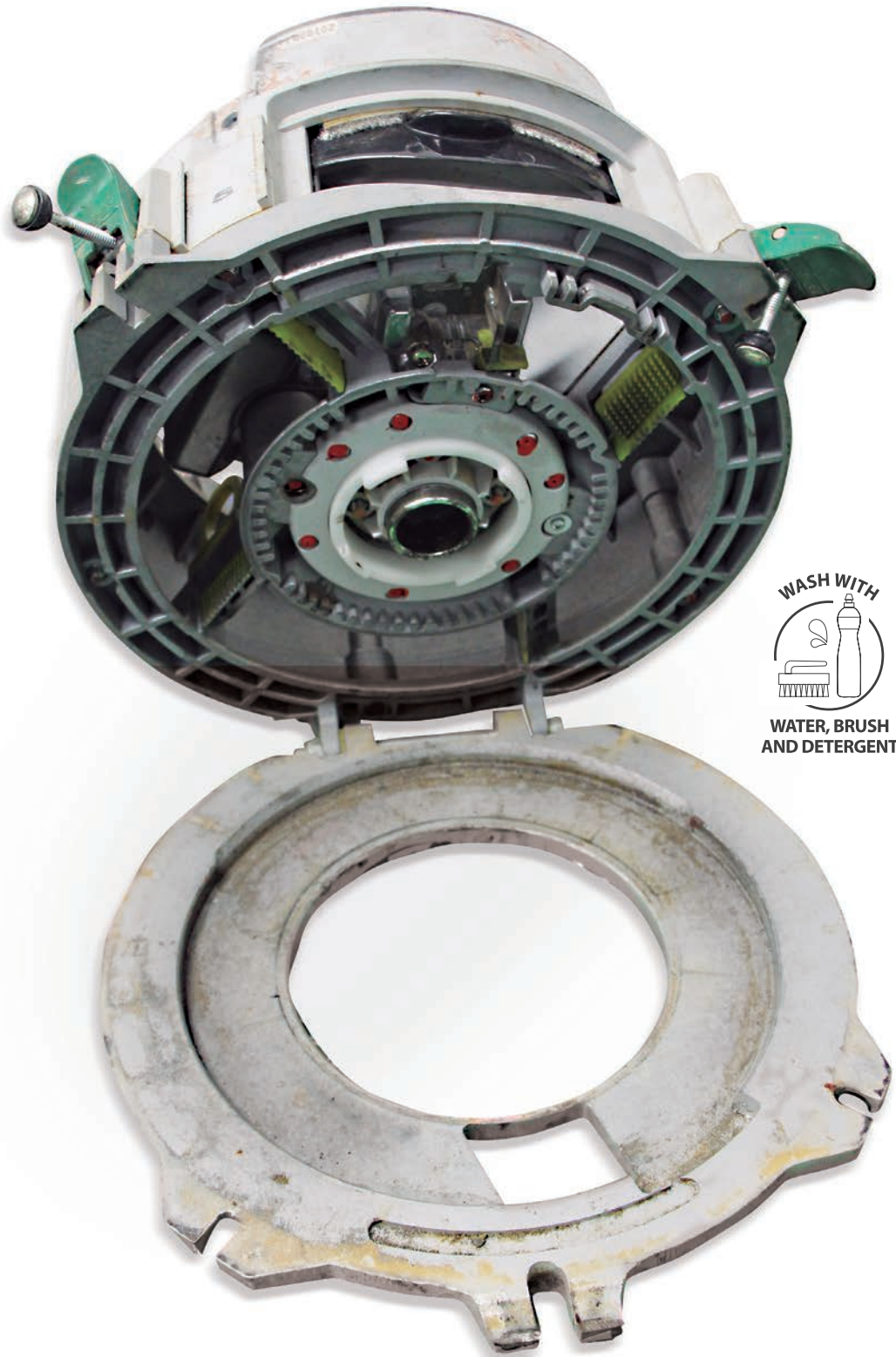


Clear signs of wear.  
A worn runner can  
lead to inaccurate  
seed singulation.

## Cleaning the TITANIUM

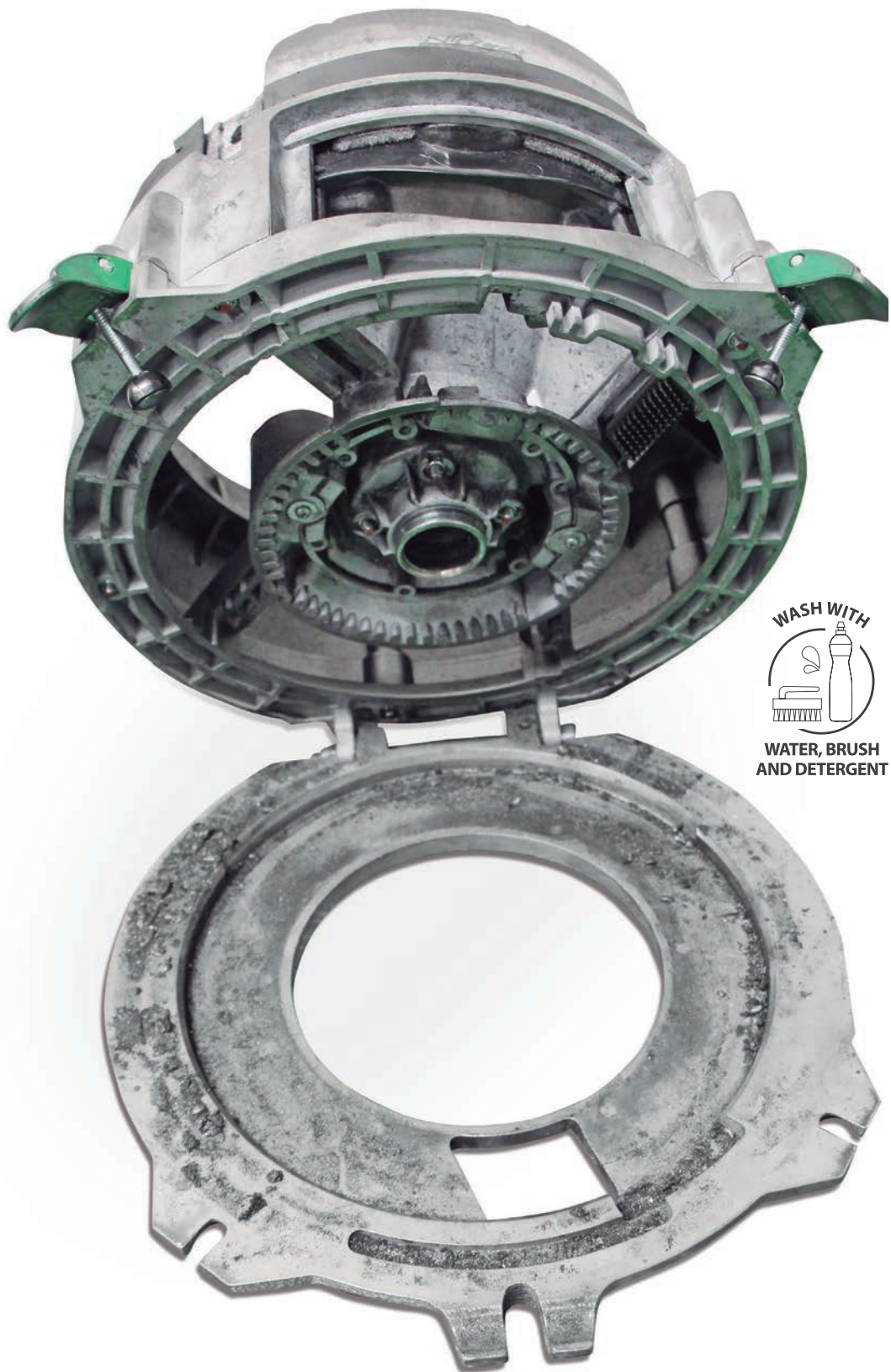
After the planting season, it is necessary to clean the disc and runner housing of the TITANIUM. Use water and normal dish washing detergent with a brush.

An example of dirt in a TITANIUM.



Dirt build up on the base plate.

An example of graphite powder in a TITANIUM.



Graphite build up may cause the base plate not to close properly.



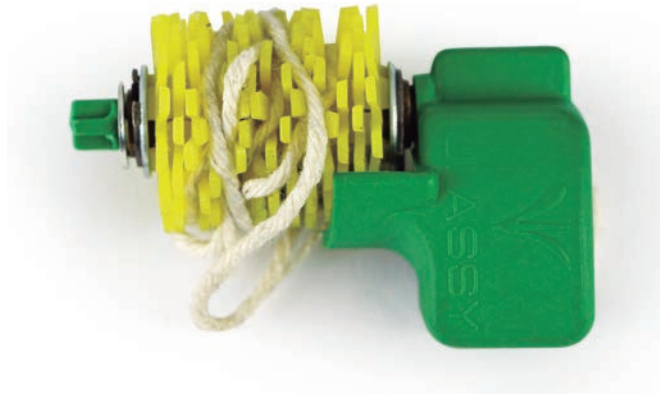
# Problem & trouble shooting

## **1. HOW TO REMOVE A STRING CAUGHT UP IN THE FLEXBRUSH?**

In extreme cases the Flexbrush roller will lock up. Do regular visual inspections through the inspection window to ensure the moving parts are functioning correctly. In some cases, the strings from seed bags can get caught up in the roller.

Remove the roller from the Titanium and cut out the string.

If the Flexbrush roller is damaged, replace it with a new part.



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## **2. WILL SEED TREATMENT RESIDUE HAVE AN EFFECT ON THE WORKING OF THE TITANIUM?**

Yes, oily treatments, liquid inoculants and powder treatments will influence the accuracy of the TITANIUM.

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## **3. CAN I PLANT AT A HIGHER SPEED WITH THE TITANIUM SEED METER?**

No, always work at a reasonable low speed according to the conditions and terrain. The TITANIUM was designed for excellent planting accuracy. Speed has a negative influence on accuracy.

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## **4. CAN THE TITANIUM WORK WITHOUT GRAPHITE POWDER?**

No! Never plant without graphite powder. Graphite is used for lubricating all moving parts, reducing wear and damage to the seed discs and disc runners.

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## **5. CAN YOU MIX THE GRAPHITE POWDER WITH SEED TREATMENT?**

No! First complete seed treatment and let the seed dry. Add graphite powder to the dry treated seed and mix thoroughly.

## **6. CAN YOU SUBSTITUTE GRAPHITE WITH TALC POWDER?**

No! Graphite should not be replaced with talc. Talc forms clods when exposed to excessive moisture and is not intended to lubricate mechanical parts.

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## **7. I STARTED PLANTING SOYA BEANS, I'VE NOTICED CRACKED AND BROKEN SEEDS, WHAT CAN I DO?**

This is a result of a lack of graphite powder, the incorrect seed disc or a too shallow runner.

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## **8. CAN I ADD INOCULATE DIRECTLY TO THE SEED IN THE HOPPER?**

No! Refrain from using any liquid in the TITANIUM when planting.

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## **9. CAN THE TITANIUM WORK WITHOUT THE WEIGHT DISTRIBUTOR?**

No! The weight distributor prevents overloading in the seed metering compartment.

### **PRODUCT DISPOSAL**

At the end of the lifespan of the equipment, please send it to any J.Assy resale partner nearby or to the implement assembler. From then on, the disposal will be carried out by those responsible in an appropriate manner.



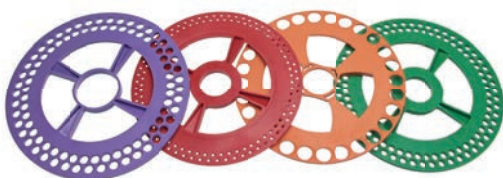
## Additional accessories

Available seed discs and disc runners



DISCS & RUNNERS

# APOLLO





# APOLLO RAMPFLOW®

(WAVY RAMP)



## SEED DISCS for planting MAIZE

Colour	Hole Size	Thick (mm)	Num. of Holes	Row
Light Orange	15.5x11.5	4	28	•
Red	14.5x10.0	4	28	•
Green	13.5x9.0	4	28	•
Salmon	12.5x8.5	4	28	•
Grey	12.3x9.4	4	28	•
White	11.5x8.5	4	28	•
Dark Orange	11x8.0	4	28	•
Light Orange	ø15.0	4	28	•
Red	ø14.0	4	28	•
Beige	ø13.5	4	28	•
Lilac Purple	ø13.0	4	28	•
Light Blue	ø12.5	4	28	•
Orange	ø12.0	4	28	•
Light Green	ø11.5	4	28	•
Blue	ø11.0	4	28	•
Rose Pink	ø10.5	4	28	•
Yellow	ø10.0	4	28	•
Beige	ø 9.5	4	28	•
Lemon Green	ø 9.0	4	28	•
Purple	ø 8.0	4	28	•



## RUNNERS for planting MAIZE

Colour	Thick (mm)	Groove Depth (mm)
Yellow	4	Level
Green	4	1
Grey	4	1.6
Dark Blue	4	2.5



Notes:

- The colour represents the hole design.
- The thickness and groove depths are in millimetres (mm).

### SEED DISCS for planting SOYA

Colour	Hole Size	Thick (mm)	Num. of Holes	Row
Yellow	ø 7.3	4.5	45	•
Orange	ø 8	4.5	45	•
Lilac Purple	ø 9	5.5	45	•
Yellow	ø 7.3	4.5	64	••
Orange	ø 8	4.5	64	••
Lilac Purple	ø 9	5.5	64	••
Yellow	ø 7.3	4.5	90	••
Orange	ø 8	4.5	90	••
Lilac Purple	ø 9	5.5	90	••
Yellow	ø 7.3	4.5	135	•••
Orange	ø 8	4.5	135	•••
Lilac Purple	ø 9	5.5	135	•••

### RUNNERS for planting SOYA

Colour	Thick (mm)	Groove Depth (mm)
Lilac Purple	3	Level
Purple	4	0.8
Yellow	4	Level
Orange	4	Level
Light Orange	4	1

### SEED DISCS for planting COTTON

Colour	Hole Size	Thick (mm)	Num. of Holes	Row
Blue	ø 7.2	5.5	108	••
Green	ø 6.5	5.5	108	••



# APOLLO RAMPFLOW®

(WAVY RAMP)



## RUNNERS for planting COTTON

Colour	Thick (mm)	Groove Depth (mm)
Blue	3	1.3
Green	3	Level



## SEED DISCS for planting BEANS

Colour	Hole Size	Thick (mm)	Num. of Holes	Row
Beige	11x8	4	56	• •
Light Brown	12x9	4	56	• •
Dark Brown	13x9	4	56	• •



## RUNNERS for planting BEANS

Colour	Thick (mm)	Groove Depth (mm)
Yellow	4	Level
Green	4	1
Grey	4	1.6
Dark Blue	4	2.5

# APOLLO RAMPFLOW®

(SMOOTH RAMP)

## SEED DISCS for planting **SORGHUM**

Colour	Hole Size	Thick (mm)	Num. of Holes	Row
Dark Brown	ø 4.5	2.5	45	•
Dark Blue	ø 5.2	2.5	45	•
Grey	ø 6	2.5	45	•
Dark Brown	ø 4.5	2.5	90	••
Dark Blue	ø 5.2	2.5	90	••
Grey	ø 6	2.5	90	••

## RUNNERS for planting **SORGHUM**

Colour	Thick (mm)	Groove Depth (mm)
White	6.5	Level

## SEED DISCS for planting **CANOLA**

Colour	Hole Size	Thick (mm)	Num. of Holes	Row
Red	ø 2.8	2.8	45	•••

## RUNNERS for planting **CANOLA**

Colour	Thick (mm)	Groove Depth (mm)
Red	7	Level

# APOLLO RAMPFLOW®

(SMOOTH RAMP)

## SEED DISCS for planting BEANS

Colour	Hole Size	Thick (mm)	Num. of Holes	Row
Black	11x16	4	50	••
Red	12x15	4	50	••
Beige	13x14	4	50	••
Salmon	9x14	4	50	••
Green	9x13	4	50	••
Grey	9x12	4	50	••
White	8x11	4	50	••

## RUNNERS for planting BEANS

Colour	Thick (mm)	Groove Depth (mm)
Yellow	4.5	Level
Green	4.5	1.5
Black	4.5	2.5

## SEED DISCS for planting PEANUTS

Colour	Hole Size	Thick (mm)	Num. of Holes	Row
Blue	ø 17	10	56	•
Red	ø 15.5	10	56	•
Orange	ø 14	10	60	•
Yellow	ø 13	10	60	•

## RUNNERS for planting PEANUTS

Colour	Thick (mm)	Groove Depth (mm)
Natural	1	Level

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