



# **GRANUDINE**

**HERB SEEDER**

**USER MANUAL MECHANICS 1.1**

**2021-03**

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## **Explanation Granudine**

The Granudine is a seeder that drops seeds by means of sowing plates into pots or trays.

The process is as follows. The seeds that are in the seed hopper are transported by vibrating to the sowing plate. The sowing plate has several holes. After the seeds are positioned in the holes of the sowing plate, the plate is shifted to the side and the seeds will be dropped through the drop tubes. By vibrating the seeds that are not dropped immediately are forced to leave the holes.

### **The working areas**

The working areas are the areas where the labor is needed to be done or can be done during the production process.

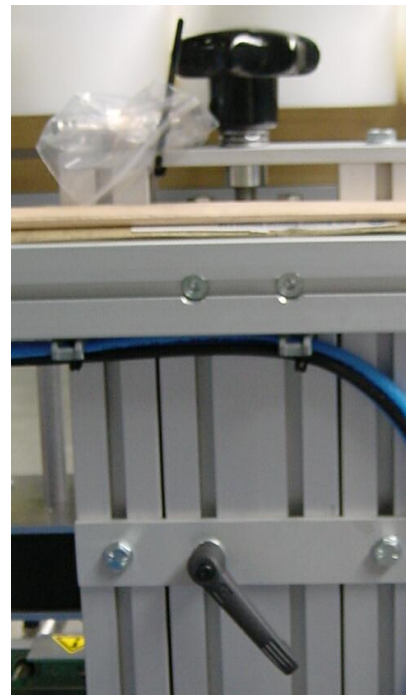
After setting up the conveyor belt the whole area around the conveyor belt is considered as working area.

### **Settings**

The following settings are possible on this machine.

#### **Height adjustment of the entire seeder.**

The height of the Granudine above the tray or pots is adjustable by the knob at the top or under the seeder. Be sure to release the fixation.



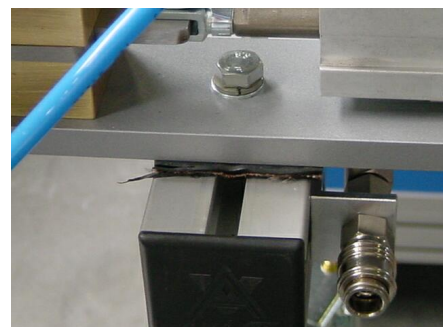
#### **Adjusting the vibration.**

The vibration can be adjusted by releasing the fixation and setting the set screw on the vibrator. This possibly needs to be done during seeding. The vibration depends strongly on the seed type, there is no standard setting.

When a pressure regulator is mounted before the vibrator it is better to use that to set the vibration as a lower air pressure results in a stronger vibration and less noise.

#### **Changing to a different seed**

- Remove the left-over seeds out of the seed hopper by using the vacuum device.
- For connection, see picture.
- Use the right sowing plates that are suitable for the other seed type and pot or tray size.
- Change the sowing plates and the side

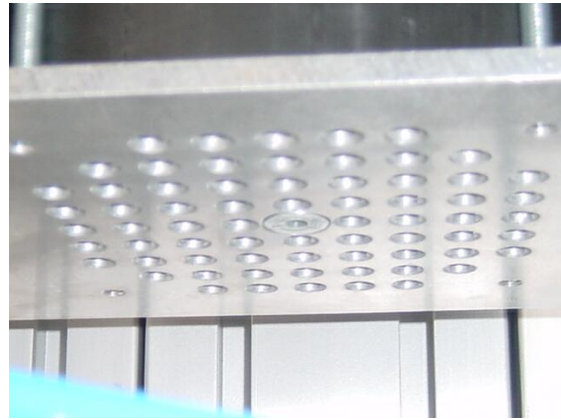


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- plates (with a different thickness) if needed.
  - Be sure that there is some clearance in between the sowing plate and the seed hopper. Also between the seeding strip and the side strips.

It is possible that some seeds are left in the drop tubes. Use compressed air to clean the output side of the dividers to remove left over seeds.

### **Change to a different trays of pot size (optional)**

- If it is with the machine, take out the tube divider and put the other one in.



### **Not enough seed in the pot**

If after 1 sowing cycles, there is not enough seed in the pot the following options can be used:

- Make 2 sowing cycles with a sowing plate with a smaller hole.
- Use a thicker sowing plate.
- Use a sowing plate with a bigger hole.

Make sure there is no dirt or metal parts left in the hole of the seeding plate.

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## Errors

**Problem:**

Machine doesn't work  
Not all pots have (enough) seeds  
Not all pots have (enough) seeds  
Not all pots have (enough) seeds  
Sowing plate doesn't move (nice)  
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Sowing plate doesn't move (nice)

**Cause:**

No air  
Wrong sowing plate  
Vibrating time too short  
Hole is stuck  
Rust on sowing plate  
Dirt between sowing plate  
Sowing plate bent

**solution:**

Connect air  
Change sowing plate  
Set vibrating time  
Clean hole  
Clean sowing plate  
Clean sowing plate  
Make sowing plate straight

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## **Maintenance**

### **Sowing plates:**

Check regular if the sowing plates shift easily. Remove the connection to the cylinder and slide the sowing plate by hand. When sowing plate is sliding not easy, remove the sowing plate.

Handle the sowing plate with care! Don't bent the sowing plate!

Bents and damage to the sowing plate will cause problems.

Check with a ruler if the sowing plate is straight.

The slightest bent can cause problems. Straighten the plate is not easy.

If the sowing plate is straight, handle with polish paper, degrease. Place the plate back.

If the plate doesn't slide easy, remove the brass blocks and clean them. Remove burrs with polish paper.

Remove grease and make sure there is some play between the brass blocks and the sowing plate when everything is put back together.

Make sure the seed is clean and use compressed air to clean the plate and the blocks.

When the seed is greasy or easily damaged, the blocks also need to be cleaned from the inside on a regular basis.

### **Dibber unit:**

When the dibber plate is not moving up and down anymore.

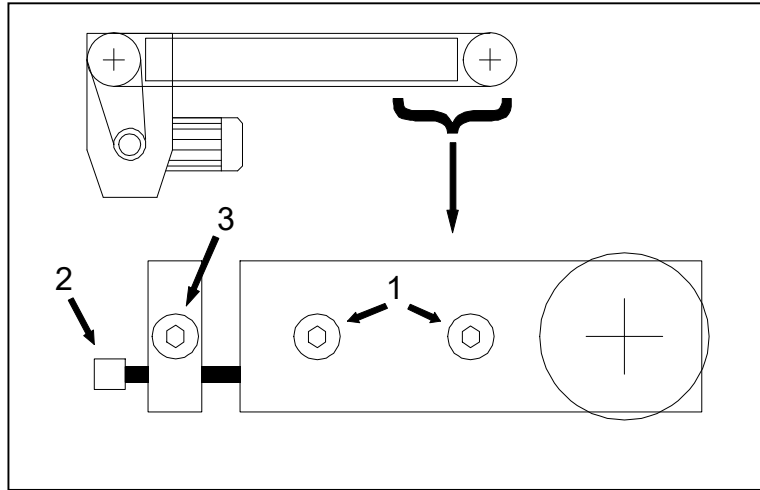
Take the air pressure off and move the plate manually up and down.

If it does not go up and down easily it needs to be greased in the corners inside the aluminum profiles.

### **Belt tensioning (types A and C)**

Tensioning the belt of a Vikon belt conveyor can be easily carried out by completing the following steps.

1. Release the bolts (1) 1 to 2 turns on both sides of the belt.
2. Then turn the adjustment bolt (2) on the tensioning block to the right.
3. Do so in a manner such that both sides are turned outwards to the same extent. When the tensioner is fully de-tensioned, the tensioning block can be moved forward by loosening (3). Ensure that adjustment bolt 2 has been entirely turned back.
4. Check to ensure that the belt continues to run in the middle of the frame and retighten bolts 1. In doing so, make sure the pulley has not gone down.



When the belt is not running in the middle of the belt frame and the steering snare in the middle of the belt is coming upwards, adjust 1 side of the adjusting possibility described above.