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users manuel

## AVS gather machine

### 1: Putting up the machine

Pay attention that the trays can rotate free, so that damage of these trays can be prevented.

Don't put any airtubes or currentcables under the machine, to prevent them from rotating with the traychain.

Take care off a good attainability from the machine, so that the processing product can be easily brought and carried off.

The minimum environmental temperature is 15°C, a lower temperature can cause problems with the adhesive tape.

### 2: Electric connection

Electric cables:

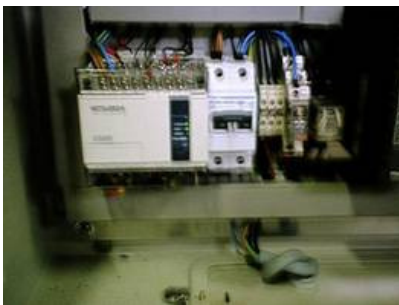
yellow / green: earthwire

blue: 0-conductor

black: 220 V

For controle: measure the voltage on the lowest connections from the double fuse.

If it is 220 V, then switch on the fuse.



### 3: Compressed air connection

Connect an airtube to the fast connection.

The pressure should be at least 5 bar.

The relaxator from the machine will be adjusted at 4 bar.

The moisture-collector should be emptied daily through the tap beneath.

The oil regulator should be refilled oftently.



### 4: Preparation of the machine

Turn off the emergency switch (when it's enabled) 15 minutes before using the machine (tapehead heating).  
With the red pushbutton it is possible to open slowly the tapeheads.  
Place a roll of adhesive tape in the upper tapehead like indicated on the photo.  
Hold the tape strongly and place the black switch downwards.  
Now the machine is doing a manual cycle.  
Take care that your hands don't get trapped between the tapehead. Repeat these steps for the other tapehead.

To clean and to control the lowest tapehead just turn the black switch downwards and put it immediately back into the neutral position.

After this, place the button downwards again so that the machine can continue the manual cycle.  
Close the door if the tape is being placed well, and move the black switch upwards.  
The traychain starts to rotate and the machine is ready for production.  
The traychain will be stopped when the photocell notices a product in a tray.  
The machine shall make then an automatic cycle.  
The traychain will restart automatically when this cycle is been completed.



## 5: Making sheafs

Put the product in the trays with their roots against the plate.  
Make sure that all the leafs are lying in the tray so that they won't get trapped between the tapeheads.



## 6: Adjustments

### A: Pull-back-distance

The adjustment of the pull-back-distance from the lowest tapeheads is very important to become nice sheafs.

The pull-back-distance from the lowest head (to the leafside) should be bigger with big sheafs than with small ones.

With leek the pull-back-distance from the lowest head to the leafside is bigger then on the rootside.  
This is due to the difference in diameter.

The pull-back-distance can be adjust, beneath the workingbench, by loosing the black button and by turning the adjustmentbutton.

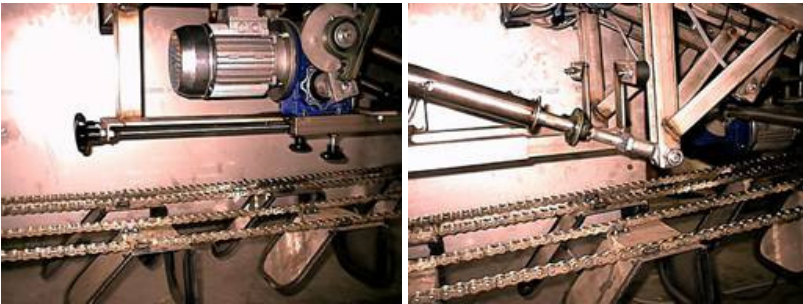
Screwing down the adjustmentbutton enlarges the pull-back-distance.

Unscrewing the adjustmentbutton reduces the pull-back-distance.

The pull-back-distance is been set up well if the adhesve tape is been tensed well by closing the tapeheads.

A too small pull-back-distance leads to the loosing from the adhesive tape out of the lowest tapehead.

A too big pull-back-distance leads to the pollution from the pertinent head with adhesive tapesnippers.



### **B: Adhesive tape tension**

Adjust the adhesive tape tension by turning the black button on the adhesive tape holder.

By turning it down, the tension will increase.

A high tension leads to faster sheafs.

A to high tension will break the adhesive tape and damage the product.



### **C: Leafguide**

The leafguide has as purpose: holding the leafs in position during the gathering.

The height of the leafguide needs to be adjust independantly from the sheaf bigness.

A good adjusted leafguide prevents many malfunctions.



### **D: Speed of the traychain,**

The traychain has 2 speeds.

1:Waiting speed

Adjust the waitingspeed of the traycheen

by changing C05 in the menu in the lefthand controller.  
The minimum speed is 20 Hz  
The maximum speed is 35 Hz

## 2: Working speed

Adjust the speed of the traychain with the turnbutton on the left variator.

The minimum speed is 25 Hz

The maximum speed is 60 Hz

After adjusting the traychainspeed it is needed to change the traychain stopposition.

This can be done by changing F08 in the memory of the left controller or by twisting the stop position cam on his axcel



## E: Working height

The supportfeet of the machine can be adjusted at the correct length, by loosening the bolts.

Be carefull! Support the machine before loosening the bolts.



## 7: Adjustements by technicians

### A: Stopposition of the traychain

The traychain will be stopped when the photocell notices a product in a tray.

The stopposition is determined by a sensor that is searching a cam.

The stopposition can be changed by twisting the cam on the spindle of the traychain.

Pay attention! Take care that the cam doesn't shove aside

The tolerance between cam and sensor should be around 4 mm.



### B: Movementvelocity of the yelow valve

There are 2 valves ,on the yellow valve aircylinder, that can be used to adjust the movementvelocity. These valves determine the capacity of the machine that depends on the available compressor. One valve regulates the velocity. The other one regulates the velocity.



### **C: Speed of the tapeheads**

Respect the following rules by adjusting the speed from the tapeheads.

- 1: The upper tapehead may not be down before the lowest tapeheads are up.
- 2: The lowest tapehead may not touch the product when it is moving upwards.
- 3: The lowest tapehead must be down completely before it can move upwards again (with succeeding sheaves).
- 4: The yellow valve has to move sooner upwards then the lowest tapehead.
- 5: The yellow valve must be down before the traychain leaves.

The speed of the lower tapehead can be adjuted by the righthand controller.

The up speed can be adjusted with the turnbutton.

The down speed can be regulated with C05 in the menu off the controller.

The speed of the upper tapehead can be adjuted by the midle controller.

The forward speed can be adjusted with the turnbutton.

The reverse (enabled by pushing the red pushbutton) speed can be regulated with C05 in the menu off the controller.

For entering the menu of the controller see page 5-1

From the INSTRUCTION MANUAL for FRENIC-MINI controller wich is delivered with the machine.