

## 1. What shall be done if salt delivery tube clogs regularly?

1.1. Check the tube on the subject of salt accumulation. The tube should be washed if there is salt formation (read an item below).

1.2. The salt delivery tube should be cleaned regularly after each salt popcorn cooking. The tube should be removed, washed by water and dried out. After that the tube should be fixed back.

1.3. The salt feed rate is too high. That supply should be reduced in the settings. Tests were undertaken only with Flavacol salt, so the proper operation of the popper can be guaranteed only with that salt. We recommend using that salt to achieve the good quality product.

## 2. What shall be done if salt fan does not work?

2.1. Check the impeller on the subject of salt clogging. To do it unscrews screws from the backside of the fan and remove the impeller.



Blow out the salt from the impeller and fan surface. Fix the impeller and launch the fan in a testing mode.

2.2 The fan should be substituted If the fan does not work after the actions described above (2.1. item).

## 3. What shall be done if the internal chamber clogs with popcorn regularly and the popper display “chamber is clogged with popcorn” message?

chamber is clogged with popcorn

3.1 The quality of some corn brands are not high and they need more time for popping or have big quantity of damaged corn. Using the standard settings the popper may operate incorrectly with these brands of corn and that may be the reason of often chamber clogging.

To make the equipment operate properly several settings should be adjusted. The settings should be adjusted in the order given below. Only if the adjusting of the first setting does give the necessary result the second setting should be adjusted.

*Temperature in chamber.* Each brand of corn demands its own temperature. For many *butterfly* corn brands the temperature is 210°C for mushroom is 230 °C. The corn testing should be undertaken if corn quality does not satisfy the expectations. The testing should be started from 200°C. It takes 5-7 min to reach the set corn rate upon corn supply initiation. After that 2-3 kg of corn should be popped, it takes 5-7 minutes. Upon that the temperature should be increased on 5 °C and new portion of corn (2-3 kg) be popped. The best corn quality can be reached by comparing the results from different cooking temperatures.

*Turbine speed.* That setting changes the air flow in the chamber. That figure is given in Hz and represents the frequency supplied on the motor. The higher frequency the faster the turbine rotation and more rapidly popcorn flies out from the chamber.

Higher turbine rotation is required to remove small popcorn and popcorn with bad aerodynamics (“mushroom” has worse aerodynamics than “butterfly”) from the chamber.

But increase of the turbine rotation leads to increase of popcorn flying-off from the chamber. Especially it refers to “butterfly” corn.

While increasing turbine rotation the quantity of unpopped corn flying-off from the chamber should not exceed 5%. It means that after the turbine rotation increase the testing of the popper with no less than 15 kg of corn shall be fulfilled.

*Corn auger speed.* That setting is represented in the settings. That setting is set for two recipes and has 32 value by default (it corresponds to 23-28 kg of corn per hour). That setting should be adjusted if increase of the turbine rotation leads to excessive corn flying-off.

Corn auger speed is rational to decrease with 4 point step, 32, 28, 24 for example. Upon corn auger speed decrease the level of the salt and oil supply should be adjusted as well. After that the testing of the popper with no less than 15 kg of corn shall be fulfilled.

3.2 Corn auger speed decrease affects the level of mesh contamination. Clean the mesh from the popcorn dust. The mesh locates in the upper part of the chamber. It is seen when the chamber lid is removed.

3.3 False chamber sensor triggering (the chamber is empty).

Check the operation of the chamber sensor. To do it remove the lid. In the testing mode *1.4 Sensor Chamber* should have white color. it means that the chamber is empty. Set an A4 paper in the bowl as shown below



The indicator should change color on red. It signifies that the chamber is clogged with popcorn.

If the sensor does not operate properly, make sure that the sensor body is clean. If necessary wipe it with a dry cloth. The wrong sensor installation can be the reason of excessive dust formation. The sensor should protrude no more than on 1mm. The sensor should be adjusted if the sensor locates up to the chamber surface or sink in it. To do it remove the panel backside of the chamber by unscrewing the corresponding screws.

If it did not help E3X-NA41 electronic amplifier should be adjusted. To do it remove the control panel lid (the electronic amplifier is represented on the photo below).



By default it is set in the middle position. Adjust it by an potentiometer.



#### 4. What shall be done if corn delivery tube is clogged?

Corn delivery tube clogging may happen in a view of chamber clogging with popcorn. If it takes place and corn cannot be supplied to the chamber the tube shall be cleaned.

Use a 10-12mm wide and 600 mm length spring for performing that operation.



Upon cleaning check the tube by throwing several kernels in the tube. The kernels shall freely reach the chamber.

#### 5. What shall be done if volume of corn is smaller than expected and part of “mushroom” corn pops as “butterfly”?

The percent of mushroom or butterfly popcorn, its volume and quantity of unpopped corn are given on a certificate which comes with corn. If the storage of corn is preserved these are the maximum figures which can be reached.

The testing is necessary to reach the maximum result from corn popping (see 3.1 item temperature in chamber).

Any “mushroom” corn have some amount of kernels which pops as “butterfly”. If increase the temperature (3.1 item) of low quality “mushroom” some additional quantity of corn will look like “mushroom”.

To get the better results from “mushroom” popcorn we recommend to gradually on 5°C increase the temperature. Pop no less than 5 kg of corn for obtaining a trustworthy result.

Exceeding temperature increase leads to popcorn volume reduction so an operator should chose between popcorn volume or higher percentage of “mushroom” popcorn.