

ITV | ICEmakers



ITV Service Department

ICE QUEEN 45

Repairing process - Change of extruder

Ice Queen 45



Tools and materials needed:

Screwdriver PH2
Allen wrench N° 5/32 & 13/64 IN.
Pointed pliers
Cutter
Drill, N° 13/64
Box spanner n° 9/32
Insulating tape.

* In this process it is not necessary to open the refrigerating circuit.

Maintenance and cleaning:

Once we've opened the evaporator, it's convenient to check it for scale build-up, and clean it, preparing a solution of 50% phosphoric acid in water. Do not use hydrochloric acid.



Security:

ITV recommends to use gloves for all repairing and maintenance processes.

1. Access to the evaporator

- First of all, disconnect the machine electrically, close the water faucet, and disconnect the water inlet tube.
- Once everything is disconnected, start the repairing process step by step:

1



Remove the top cover with a PH2 screwdriver to access gear motor. Two Screws marked in red (picture 1)

2

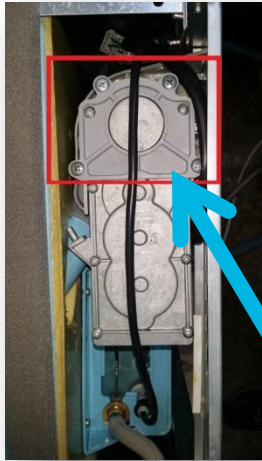


3



Remove with a PH2 screwdriver these six screws (marked in red, picture 2) on the rear panel to access the evaporator.

2. Gear motor



4

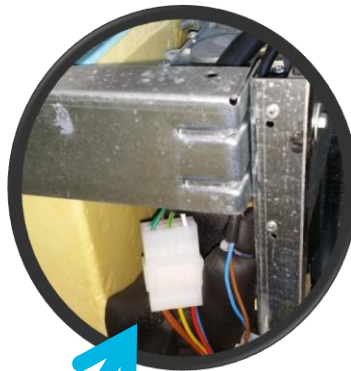


5

Remove with a PH2 screwdriver these four screws that hold the gear motor to the evaporator. Removing these screws, the gear motor will be completely free.



6



7

Disconnect the electrical connection and remove gear motor from this location.

3. Evaporator



Take the drill n° 13/64 and remove the two rivets that hold the evaporator bracket. Disconnect the water inlet tube.



When removing these two screws, the evaporator will be completely loose and we should hold it with one hand to keep it from falling, while preventing damage to refrigeration copper tubes, specially the capillary tube.

3.1. Upper plate disassembly



12

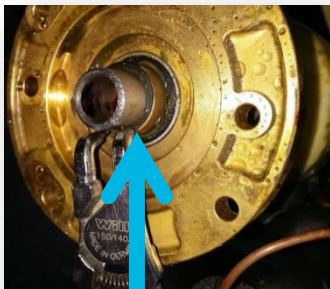
With a cutter, carefully cut the insulation. You can re-use it when you assemble the evaporator again.

Use an insulating tape (picture 26) to re-use this insulation.



13

Mark plastic and plate as shown to facilitate assembly in same position.



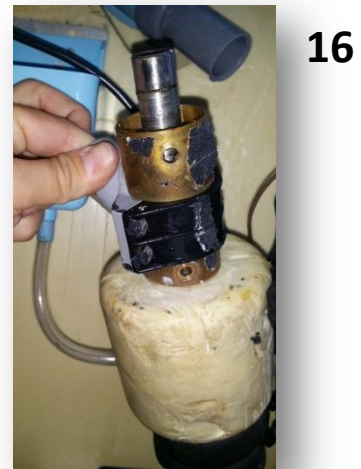
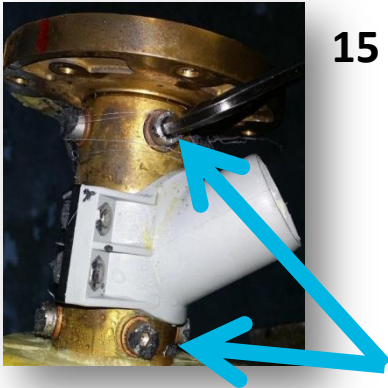
Remove the safety **ring** with pointed pliers.



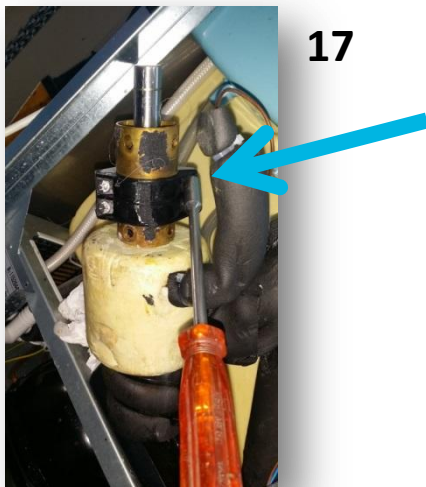
14

Remove top cap leveraging carefully with a flat screwdriver

3.2. Auger Disassembly



Take the n°5/32 & 13/64 allen wrench and remove the four screws from the upper plate that hold the extruder.



Remove the ice chute with a box spanner n° 9/32



Pull the auger out of the evaporator.

Once opened, check the evaporator for scale build up, and do the maintenance and cleaning process if necessary

3.3.Extruder disassembly



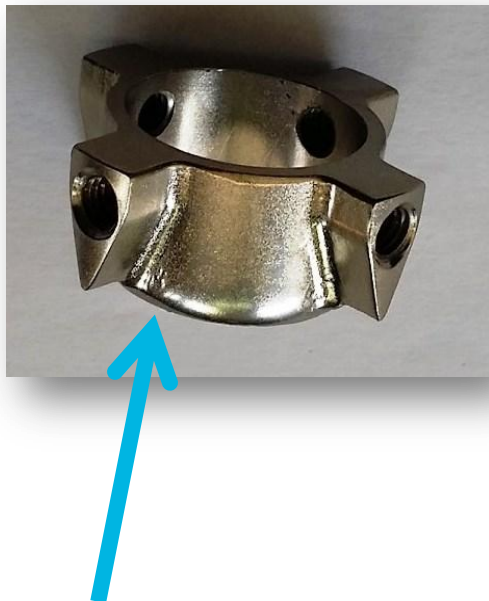
19

With the n° 1/8 allen wrench remove the screw that holds the pushrod, as shown in picture 19.



20

Remove the old extruder



21

New extruder



22

Install the new extruder and fix the pushrod with n°1/8 allen wrench..

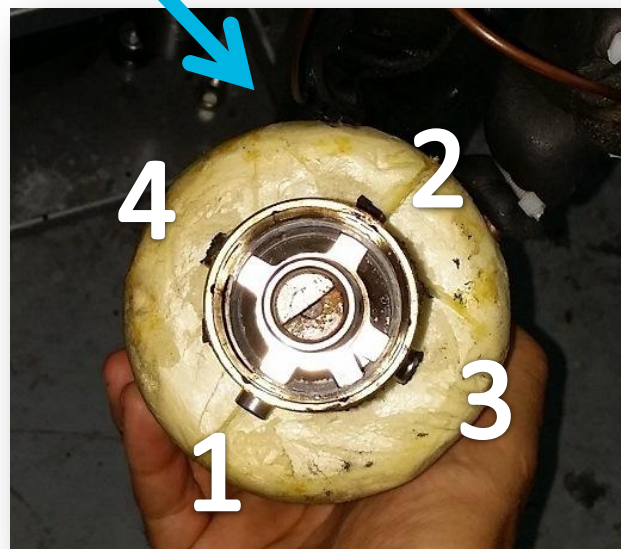
3.4.Extruder assembly

To complete the assembly, follow the previous points inversely.

!!!IMPORTANT NOTICE!!!

When tightening the four screws that hold the extruder follow a star pattern, tightening them gradually with the n° 5/32 allen wrench.

Step by step 1-2-3-4-1-2-3-4



4. Evaporator (insulation assembly)



25

Re-use the insulation using this kind of insulating tape.



26

