

DISTILLATION COLUMNS [Part 2 - Kashering]

In Part 1, we noted that ceramic packing cannot be *kashered*. Another significant issue is that certain columns – particularly deodorizers with trays – are used with fats and oils and are (essentially) never cleaned. As a result, there may be years of oil residue caked onto the trays or other parts of the machinery. In some cases, the only way to remove all this residue was to open the column and use jackhammers (!) to chisel away at the solidified oil.

On a smaller scale this issue presents itself with every column filled with packing. When distillation of one product ends, there will be drops of liquid on many of the pieces of packing and there is no simple way to flush them all out. For example: a factory was switching their essence column from grape juice to apple juice, and what they did was process apple juice for some time and discard the essence until they smelled that it seemed more apple-like than grapelike. They did this because they could not flush all the grape residue from the column and used smell as the barometer that enough of the grape was removed. Is that good enough to consider the equipment "clean" for hag'alah?

Our initial reaction might be to say that this is not a good enough cleaning in preparation for *kashering*. However, we have seen in DK 62-64 that – assuming the residual liquid will be *batel b'shishim* in the coming kosher product (as would be

common) – it is sufficient to clean equipment to the "industry standard of clean" (כדרך המכבדים). This appears to be a good example of that halacha, and therefore once the company has flushed the still as they typically do between products, we may consider it "clean enough" for *kashering*.

Another issue to consider is that items cannot touch one another during kashering because the hag'alah water will not be able penetrate the point of contact. Seemingly, this is a concern when a column is filled with random packing. thousands of pieces of packing move around a small amount during production especially during startup and shutdown which means that an area of packing which was exposed to product will be covered by another piece of packing during the kashering. Does that mean that the packing (and, in turn, the column) cannot be kashered? Can we rely that that the amount which is not being properly kashered is so small that the overall column is treated as a utensil which is עשוי (see DK 14)?

More significantly, how can we even be sure that hag'alah water reaches all surfaces? Kashering will be accomplished by pouring hot/boiling water in from the top and pumping steam up from the bottom, as is done during production. That will surely

bring hot water into contact with <u>many</u> surfaces, but will all surfaces be affected? The nature of the packing is for it to randomly break up the flow of water (and steam) in dozens or hundreds of different streams. Why should we think that all areas will become covered with water during a *kashering* that just takes 30-60 minutes?

These questions require further consideration.

CRC POLICIES

- 170. A distillation column filled with random packing is being *kashered* after it was used for non-kosher products.
 - a. Before hag'alah we must remove all non-kosher residue. Can this be accomplished by flushing water through the column in the same way the company would do between different products?
 - We should insist on a thorough flushing to remove residue, and determining exactly what constitutes a "thorough" flush should be carefully determined for each column individually
 - b. Can the column be *kashered* even though the pieces of packing are touching one another?

Yes

c. How can we be certain that *hag'alah* water (or condensate) touches all interior surfaces of the column?

This requires further consideration

מראה מקומות

שולחן ערוך סימן תנ"ב סעיפים ג'-ד'