Usually the flasks are removed after sampling and replaced with unsampled flasks. The flasks to be removed are packed in the transport boxes using the "packingTool". It is recommended not to change more than 6 flasks at one time (to better find leaks). The procedure is described below.

Danger of glass breakage in combination with overpressure - use safety goggles!

1. Activate the barcode scanner (button must be light green):
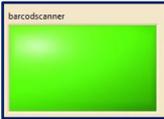
2. Open the drawer in which the flasks to be changed are located and activate the unmount flask mode by scanning the "unmount flask" barcode (the drawer lights purple):

3. Scan the flasks to be removed and check for the green confirmation blink signal at the drawer (use either clamp barcode or the flask barcode, it doesn't matter) and check if all flasks have been scanned.
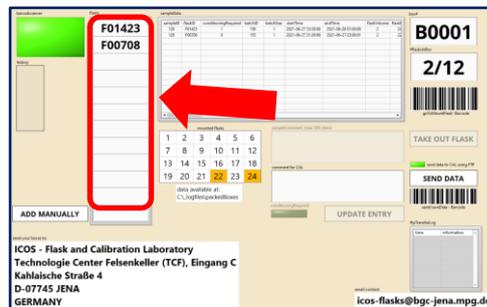
4. Remove the scanned flasks physically (first loosen the cap nut and then open the clamp!) and put them into the transport box (barcode to top, add protective caps to the flask tubes!).

5. Insert the new unsampled flasks physically with the barcode in front direction (after inserting the flask in the port: first close the clamp and then turn the nut very tight)

6. Activate the barcode scanner again (button must be light green)

7. Activate the mount mode by scanning the "mount flask" barcode at the drawer sides (open drawer is cyan = "Mount Flask" mode):

8. Assign each inserted flask to a port check for the confirmation blink signal at the drawer (first scan the port-barcode and secondly scan the barcode on the flask):

9. Close the drawer and wait for the automatically starting leak test

10. Wait up to two minutes until the leak test is completed. If the test is passed, the procedure is complete and the inserted flasks get the status "mounted". The software feeds back whether the leak test has been passed or not:

leak test successful 2 new inserted flasks mounted -> ready to sample	leak problem at front side please make sure that all clamp rings are closed tight

If the leak test fails, check that:

- every cap nut is very tight (tighten the cap nut as tightly as possible)
- flasks or blind plugs have been inserted at all ports
- the o-rings and the stainless steel rings are existing and in good / clean condition
- all clamps are properly closed and snapped in
- the flasks tubes are clean

In rare cases, leaks can occur in a flask. To find the leaking flask you should remove one of the newly inserted flasks at a time and exchange with blind plugs. Then close the drawer and wait for the automatic leak test. If the test fails, remove the other newly inserted flasks piece by piece in the same way until the leaky flask has been found. Clearly mark leaky flasks and send them to the ICOS lab in Jena.

Last steps before sending the flask box

1. open the packingTool tab
2. activate barcode scanner
3. scan the barcode of the used flask box
4. scan **all** the flasks contained in the box
5. check that all the flasks in the box appear on the screen, that the box number is correct and that the number of flasks is correct (e.g. 12/12)
6. press the "Send Data" button (this will send the sampling data to the ICOS CAL)