

Dosing Innovation for Liquid and Powder Chemicals



Old type lab dyeing machines do not provide the possibility for adding the chemicals without opening the lid. Newer lab machines do have an injection system in which by means of an injection device and a membrane integrated in the lid, the chemical is injected into the beaker.

Disadvantages of no adding possibility:

- Time is lost (opening and closing beaker) and cooling down of the dye bath takes place. This increases the possibility of creases and wrinkles.
- Adding over time (as dosing on the production machines) is not possible.
- Danger of having spots on fabric, because of adding chemicals directly into the dye bath.
- Time consuming operation and great care of the operator is needed. Errors are frequent and reproduction from lab to production is not optimal.

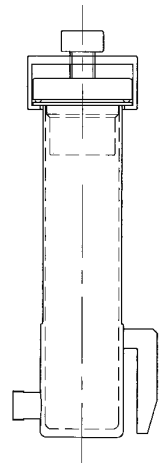


Disadvantages of the injection method:

- Time consumption during adding relatively big, since for every beaker approx. 10 to 15 seconds are being lost (on a 16 beaker machine, adding takes therefore approx. 3 - 4 minutes). This increases the possibility of crease marks and wrinkles on fabrics.
- Only solutions (no powder chemicals) can be added. This increases liquor ratio, e.g. when soda ash has to be added. Reproduction from lab to production is not optimal.
- The solution is given to the bath in a very short time. Spots are very frequent since the chemical is not added in a time frame as on the production machine.
- Membranes and injection device need spare parts and are therefore costly.

Our system:

- With the optional specially designed lids, powder as well as liquid chemicals can be put into a small beaker (separated from the dye bath).
- Actuating a lever (time approx. 3 seconds per beaker = less than 1 minute for a 16 beaker machine) initiates the slow dilution of the chemical into the dye bath (beaker lid must not be opened to activate this process).
- Comparing the above systems with our system: Beakers do not move for only one minute. This increases the quality (less wrinkle and crease marks).
- Since the chemical mixes slowly with the dye bath, concentrated chemicals are not touching the fabric and the fabric is dyed spot-free.
- It is the optimal method for the cotton and cotton / polyester dyers but also for any other materials.



LAB 101.0 e