

Designing Four Portable Models for Filtering or Sterilizing Liquids

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Abstract

Inexpensive and available materials have been employed to designing four portable field models which can be used for filtering or sterilizing liquids. The first two models have been made from modifying glass syringe in the glass work -shop at Science College. These two models have two parts (connecting by two spiral spring), the first as a container for liquid and the second including the cylinder and its piston. At the end of the clinder there was pad fpr membrane filter. The first model was apposite for membrane filter with diameter 25 mm, while the second model for 47mm

The third model has been made from modifying plastic syring by cutting and binding a cap of can as pad for membrane filter and can as container of liquids. The fourth model was similar to the third model but differ by exchanging the plastic piston with steely piston designer in turning work-shop. This piston was accouplement by two screws fixing it in the cylinder which base by steely handles and third screw can easy gliding when circulation by hand controlling the movement of the piston. The fouth model gave easy over powering the low pressure inside the cylinder without suffering by holding with hand. The calibrating results of the four model with standard model showed interrelate efficient in filtering and sterilizing liquids