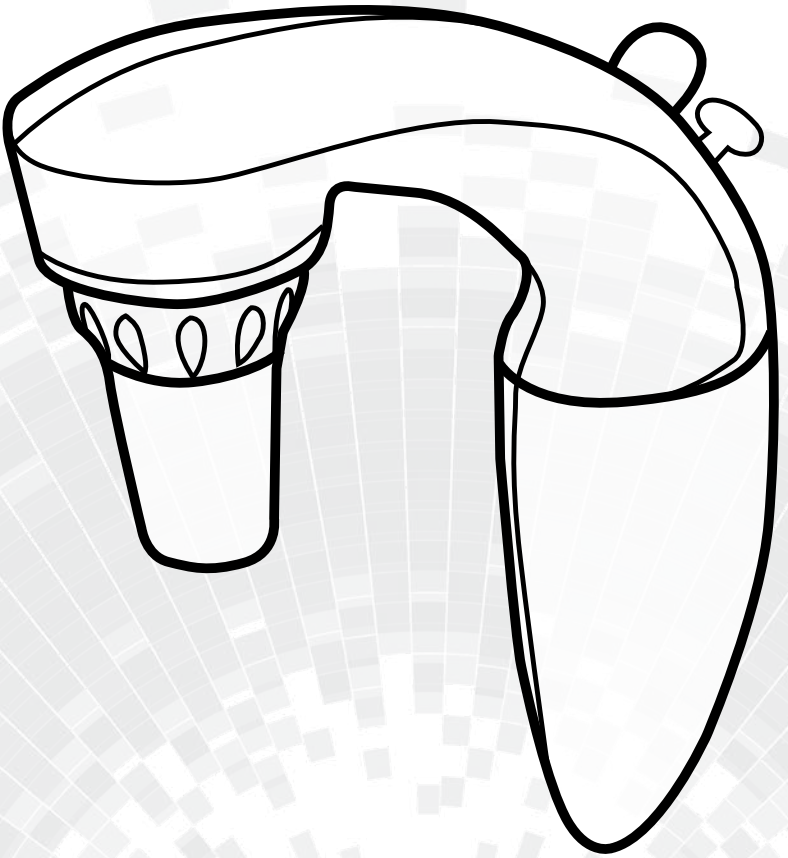
Heathrow Scientific®

RF1000™

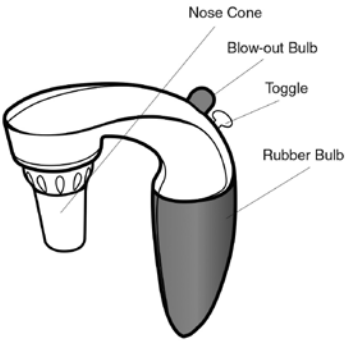
manual pipette controller

Instruction Manual



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Product Description: The RF1000 is a simple instrument for manually filling and dispensing pipettes. The RF1000 accommodates graduated or volumetric pipettes (made of glass or plastic) and can be used with volumes ranging from 1 to 50mL.



Caution! Take care to avoid aspirating

liquid into the RF1000 which can impair performance. If liquid is aspirated into the unit, clean the pipette adapter and nose cone per instructions under maintenance. If necessary replace the filter.

How to Use

1. **Attaching the Pipette**: While holding the top of the RF1000 with one hand, carefully push the pipette into the silicone adapter inside the nozzle, twisting it slightly. Excessive force can cause the pipette to break. Use extra caution when inserting thin pipettes.
2. **Aspirating:** Immerse the pipette tip into the liquid. Squeeze the rubber bulb until sufficiently deflated. Push the toggle forward to aspirate. The speed of aspiration is dependent on the amount the toggle is pushed forward from center position. When released, the toggle comes back to center position and aspirated liquid is held in place.
3. **Dispensing:** Place the pipette tip at an angle against the inside of the receiving vessel. Slowly push downward on the toggle; dispensing speed is dependent on the amount the toggle is pulled downward from center position.
4. **Blow Out:** Push the blow-out bulb to expel the liquid remaining in the pipette. This may need to be repeated several times to completely expel all liquid.

Maintenance

The RF1000 is normally maintenance-free. When necessary, the housing can be wiped occasionally using a damp cloth.

Caution! When cleaning and exchanging the filter, wear protective gloves and safety goggles to avoid the risk of splashes and contamination.

Cleaning the Pipette Adapter and Replacing the Filter

If liquid has entered the nose cone or if the aspirating efficiency has decreased, observe the following instructions:

1. Hold the pipette over a container and remove the pipette.
2. Gently unscrew the nose cone.
3. Remove the filter.
4. Remove the pipette adapter from the nose cone by pushing it upwards.
5. Rinse the pipette adapter with demineralized water and allow to dry at room temperature.
6. To insert a filter, face the side imprinted with the Whatman® name and filter size toward the pipette adapter and push in. The side of the filter with a smooth protrusion and no imprinting should now be visible.
7. Reassemble the RF1000 by reversing the steps above.
8. Test RF1000 for leaks, see "Checking for Leaks".

Notes:

- Not all membrane filters are suitable for use with the RF1000. For proper performance, only use the manufacturer's recommended replacement filters: Whatman PTFE/25mm diameter/0.45µm (see next page for ordering information).
- The pipette adapter, filter, and filter adapter may be steam sterilized at 121°C for 20 minutes.
- It is the user's responsibility to ensure proper sterilization.

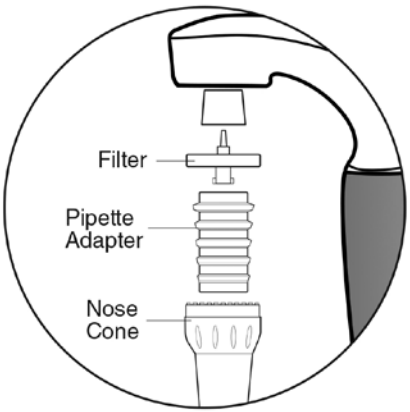
Technical Data

Pipettes:..... 1 to 50 mL pipettes, glass or plastic
Working temperature: ..... 32 to 95°F (0 to 35°C)
Materials Housing:..... ABS
Nose cone:..... Polypropylene (PP)
Bulbs:..... Silicone Rubber
Pipette adapter: ..... Silicone
Filter:..... PTFE/25mm dia/0.45µm filter in PP housing

The RF1000 must not be used with liquids whose vapors are incompatible with silicone, ABS, PTFE, PP.

Checking for Leaks

When the pipette has been filled, liquid should not drip from the pipette when toggle is in center position. Should the pipette drip, disassemble the pipette adapter, filter, and filter adapter. Carefully reassemble. If necessary, replace worn parts. See "Ordering Information".



Ordering Information

RF1000.....**HS1000RFU**
Filters, pack of 5.....**HS5000RFFIL**
Nose cone.....**HS1000RFRR**
Pipette adapter.....**HS5000RFRP**

Return for Repair

Heathrow Scientific LLC will not accept any RF1000 that is not appropriately cleaned and decontaminated.

In the unlikely event of repair, or where damage to the unit necessitates return, contact Heathrow Scientific LLC and obtain return authorization before sending your RF1000 for service.

Limited Warranty

Heathrow Scientific LLC warrants the RF1000 will be free from defects in workmanship and materials for one (1) year from the date of purchase.

If you believe that the product is defective, then you must, during the warranty period, notify Heathrow Scientific LLC, provide paroof of purchase, and return the product to Heathrow Scientific LLC with a Return Authorization form. To obtain a Return Authorization form, please call 1-847-816-5070.

If Heathrow Scientific LLC is properly notified and after inspection confirms that there is a defect and the warranty period has not expired, Heathrow Scientific LLC will repair, modify, or replace the product, at its sole option, at no charge.

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- ACCESSORY PARTS, SUCH AS RUBBER PARTS, THAT ARE DAMAGED BY LIQUIDS OR MISUSE.

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