

## The Burette

### How to use it

1. Fix the burette into the burette holder, taking care that it is vertical and stable.  
Place a beaker underneath the burette.
2. Close the tap, and run some de-ionised water into the top of the burette.  
Let the water clean the inside of the burette.  
Open the tap, and allow the water to drain out. **Repeat.**
3. Close the tap, and (using the funnel) run **some** of the required reagent, e.g. acid, into the top of the burette. Open the tap, and allow the reagent to drain through into the beaker. **Repeat.**
4. Close the tap, and fill the burette to just above the 0.00 cm<sup>3</sup> mark with the required reagent.  
**Remove the funnel.** Make sure that there are no air bubbles inside the burette.  
Slowly open the tap, and allow the reagent to run down to (or just past) the 0.00 cm<sup>3</sup> mark.  
Close the tap.
5. Remove the beaker, and place a white tile under the burette. Put a conical flask under the burette, and adjust the height of the burette so that the tip is just above the lip of the conical flask.

The burette is now ready for use.

### Recording the results

1. Construct Results tables like the ones below. Before you start, record the reagents used.

Burette reagent	<i>Write in the name and concentration of the liquid in the burette</i>			
Conical flask reagent	<i>Write in the name and concentration of the liquid in the flask</i>			
Indicator	<i>Write in the name of the indicator used, if any</i>			
	Run 1	Run 2	Run 3	Run 4
Final volume (cm <sup>3</sup> )	<i>a</i>			
Initial volume (cm <sup>3</sup> )	<i>b</i>			
Titre (cm <sup>3</sup> )	<i>(a-b)</i>			
Mean titre (cm <sup>3</sup> )				

2. In the first run, you should overshoot the end-point a little.  
Indicate that you have done this by drawing a pencil line through the Run 1 column and writing "overshoot" against it.
3. In subsequent runs, allow the burette reagent to run through more slowly as you reach the end-point to get a more accurate result. Record the start and end volumes as you go.  
Record volumes to the nearest 0.05cm<sup>3</sup>, i.e. **all** volumes should end in .x0cm<sup>3</sup> or .x5cm<sup>3</sup>.
4. If your three accurate runs are very different from each other, repeat until a more consistent result is obtained, i.e. to concordance ( $\pm 0.10\text{cm}^3$ ). Put a pencil tick against the titres you use in your calculation of the mean titre (see below).
5. Calculate the mean volume delivered (the titre) and record it in the table.