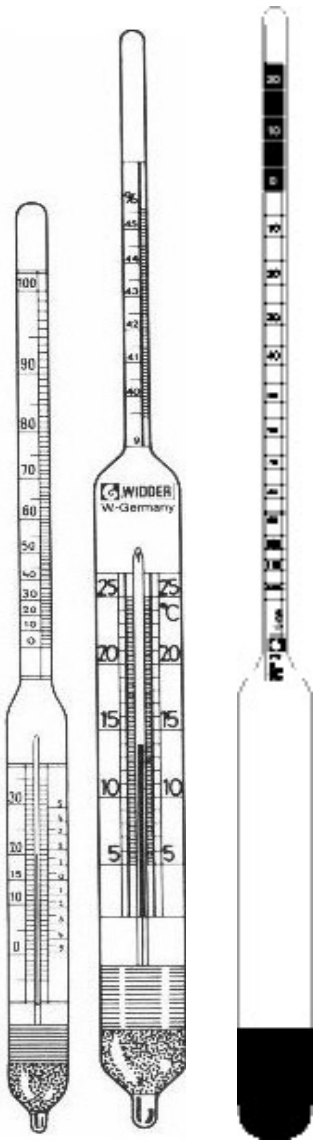


Specific Gravity Hydrometer



Accuracy is Everything

When it comes to alcohol test equipment, Widdler laboratories in Germany produce the finest range of Laboratory standard test equipment.

- Alcoholometers Range 0-100%
- Alcoholometers Range 30-60%
- Alcoholometers Range 30-60% with thermometer
- Distillers Thermometers
- Calibrated Glass Test jars
- Hydrometers

The Hydrometer is best described as a floating weight. It is the most important instrument used by the wine maker or brewer.

The hydrometer is used to determine the 'Specific Gravity' of the beer or wine either before fermentation begins or at the end of fermentation. It does this by reading the fermentable sugar content in the wort (brewing recipe) or grape juice. The more sugar there is in the liquid, the thicker or denser it will become and the higher the 'Specific Gravity'.

Uses for the Specific Gravity Hydrometer

- It is used to determine when the wine is fully fermented.
- It calculates how much alcohol has been developed in the wine.
- Find out how much sugar to add to impart the correct body.
- Determines when wine should be drawn off.
- Calculates how much sugar is needed to give a required alcohol strength.
- Checks that wine is not too dry, which can ruin flavour, fullness and keeping quality.
- Works out incremental sugar dosing of strong wine (if too much is added at one time fermentation will be inhibited.)
- Checks sugar content at start of fermentation, following up to see when fermentation has ceased.
- In short, it checks the entire progress of fermentation for either brewing or wine making.

How do I use the hydrometer?

The hydrometer has long glass section containing the calibrated scale and it is weighted at the bottom, (with a bulbous lower end) so that it will float upright in a liquid. The scale of figures on the hydrometer appear to be 'upside down' the smallest being at the top and the largest at the bottom.

To read the hydrometer you can either float it directly in the fermenter or decant some of the liquid into a tall test jar.

Always spin the hydrometer after placing it in the liquid to remove any air or gas bubbles clinging to the glass which will give an inaccurate reading.

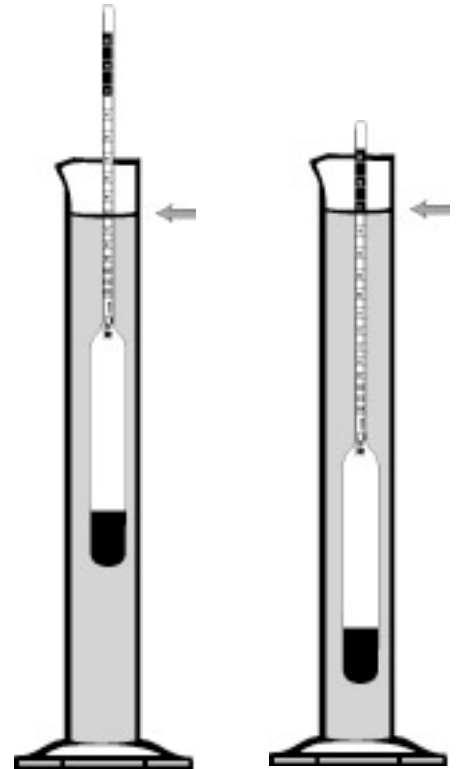
Steady the hydrometer and take your reading immediately it stops bobbing as all hydrometers will slowly rise up.

Example to determine potential alcohol of a beer

Starting SG reading.....1045
 Final SG reading..... - 1000
 difference.....45

Subtracting one from the other leaves a figure of 45 . To determine potential alcohol you then have to divide this figure by **7.46** and you have the approximate alcohol in your beer.. In this case 6.03 percent.

The accuracy of the hydrometer can be tested in water, where it should float at S.G. 1000. at 60 F.



Here the hydrometer floats high before fermentation begins.

At the completion of fermentation the hydrometer sinks lower in the liquid.