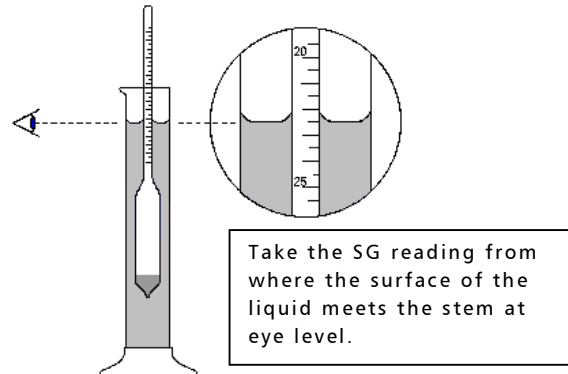


Hydrometer for Wine and Beer

Reading the Hydrometer:

The hydrometer gives a specific gravity (SG) reading. This reading is an indication of how sweet/dry the wine is. A hydrometer is vital for consistent results in wine making and brewing.

A hydrometer will show a high figure at the start of the fermentation and a low figure when the fermentation is finished. It gives a useful indication of the progress of the fermentation. To check that the liquid is fermenting, the SG reading must indicate a lower figure than the previous reading. A reading of SG 1.000 or lower for more than two days indicates that fermentation is at an end. The hydrometer should read SG 1.000 in tap water at 20°C (68°F). The deviation may amount to 3 units of calibration above or below 1.000. Test the hydrometer and allow for the discrepancy, if any, when testing/measuring the liquid.



To use:

Always sterilise hydrometer and trial jar before use. Do not place in hot water, it may break.

Put sample of liquid to be tested into a trial jar. Lower hydrometer carefully into liquid, spin or shake to remove bubbles sticking to stem. If liquid is still fermenting, bubbles on the hydrometer may cause the reading to be incorrect, in this case remove the hydrometer and shake the sample to remove as much gas as possible.

When the hydrometer is steady in the liquid take the SG reading from where the surface of the liquid meets the stem at eye level. After use, rinse the hydrometer and wipe dry.

Always take a reading of the liquid before adding yeast and fermentation starts. With kit wines it is convenient to take a reading after sugar (if any) has been added. It is best to dissolve sugar before adding, with country or fruit wines take a reading before adding sugar in order to calculate the correct amount of sugar to add.

Beer makers use the hydrometer in the same manner as for winemaking, but can use the SG 1.005 point to check when the beer is ready for bottling.

The hydrometer "reads" the thickness of the liquid, if a lot of fruit is used and grain also is added this will increase the reading, the reading can be used in conjunction with a taste of the sample of liquid being tested.

To calculate the final strength of the wine, write down (omitting the decimal point) the SG

At the start of the ferment (i.e. after the sugar was added). Subtract from it the final SG, and divide the answer by 7.36; that is the percentage of alcohol by volume of your wine.

Multiply that by 7 and divide by 4 and it will give you the strength as proof spirit.

Starting SG – Final SG ÷ 7.36 = % Alcohol by volume then

% Alcohol by volume x 7 ÷ 4 = Strength as proof spirit

Specific Gravity (SG)	Amount of sugar in 1 gallon (ounces)	Amount of sugar in 4.5 litres (grams)	Potential % by volume
1.000	0	0	0.0
1.005	1	26	0.3
1.010	2	55	0.9
1.015	4	125	1.6
1.020	7	195	2.3
1.025	9	265	3.0
1.030	12	320	3.7
1.035	15	410	4.4
1.040	17	480	5.1
1.045	19	535	5.8
1.050	21	590	6.5
1.055	23	645	7.2
1.060	25	705	7.8
1.065	27	760	8.6
1.070	29	815	9.2
1.075	31	870	9.9
1.080	33	930	10.6
1.085	36	1010	11.3
1.090	38	1065	12.0
1.095	40	1125	12.7
1.100	42	1180	13.4
1.105	44	1235	14.1
1.110	46	1290	14.9
1.115	48	1345	15.6
1.120	50	1400	16.3
1.125	52	1455	17.0
1.130	54	1510	17.7
1.135	56	1565	18.4



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