

**PRODUCT CATALOGUE & TRADE  
PRICE LIST FEBRUARY 2025**



**PRECISION MEASURING EQUIPMENT FOR  
BREWING, DISTILLING AND BOTTLING.**

## HOW TO ORDER

Please get in touch with us by email or phone with your requirements.

When ordering, please state the product code. If you have ordered from us before, please quote your customer account reference when placing an order.

Where instruments are specially made, we reserve the right to specify a minimum order quantity.

## PRICES

The prices shown are ex-works and do not include VAT or carriage.

There is no minimum order value, and prices are liable to change without notice.

## DELIVERY

Orders up to 15kg in weight are sent out by next working day service where possible to all mainland UK addresses. Our standard UK mainland delivery charge is £16.00 for orders up to 15kg.

Long or heavy items will be sent by a slower 48 Hour service. The charge for oversized items is usually £37.00 for mainland UK delivery.

Larger consignments or those to offshore addresses will incur a higher delivery charge.

Where the services are available, we can also provide AM or Saturday deliveries for a surcharge.

## DAMAGED OR LOST GOODS

Consignments should be examined as soon as possible after they arrive.

If your order is damaged in transit or incomplete, please advise us in writing within 7 days of receipt.

## QUALITY

Our Quality Management System is assessed to ISO9001:2015 by the British Standards Institution. We continuously monitor the quality of our products and reserve the right to change specifications at any time.

## ABOUT US

Stevenson Reeves Ltd is a world-class manufacturer of hydrometers for all industrial, laboratory, and home uses. We also distribute thermometers and other sundries for the Brewing, Distilling and Soft Drinks industries. The business was started in 1805 and specialised in manufacturing measuring instruments for the brewing and distilling industry. For over 200 years, we have been manufacturing instruments of the highest quality, and now supply many industries around the world.

## CONTACT DETAILS

Call us with any orders or enquiries. Normal office hours are 9.00am to 4.30pm.

Telephone +44 (0)131 445 7171

To place an order or make a sales enquiry, get in touch with our sales department.

[sales@stevenson-reeves.co.uk](mailto:sales@stevenson-reeves.co.uk)

Accounts or invoice enquiries should be made to the accounts department.

[accounts@stevenson-reeves.co.uk](mailto:accounts@stevenson-reeves.co.uk)

## YOUR OFFICE CONTACTS AT STEVENSON REEVES LTD ARE:

Campbell Hardie

Sofia Koch

## FOR MORE TECHNICAL QUERIES ASK FOR:

Richard Mein Managing Director

Peter Quill Quality Manager

## DENSITY MEASUREMENT

5 – 18

A range of saccharometers, hydrometers, hydrometer jars and accessories



## TEMPERATURE MEASUREMENT

19 – 26

A range of liquid in glass thermometers and digital thermometers



## pH MEASUREMENT

27 – 28

A range of pH meters and accessories



## SUGAR REFRACTOMETERS

29 – 30

A range of refractometers with sugar scales



## VOLUMETRIC MEASUREMENT

31 – 34

A range of volumetric glassware for lab and bottling, along with dip rods and tapes for large vessels





## CARBONATION TESTERS

### 35 - 38

A range of equipment for testing the dissolved carbon dioxide levels in carbonated drinks



## LABORATORY EQUIPMENT

### 39 - 40

A range of analysis equipment including a still for ABV determination



## SAMPLING EQUIPMENT

### 41 - 44

A range of samplers, sample containers and nosing glasses for whisky



## COOPERAGE TOOLS

### 45 - 48

A range of hand tools for use in cooperages and bonded whisky warehouses



### **Stevenson Reeves Ltd**

40 Oxbgangs Bank, Edinburgh, Scotland, EH13 9LH

T +44 (0)131 445-7151

[sales@stevenson-reeves.co.uk](mailto:sales@stevenson-reeves.co.uk)

[www.stevenson-reeves.co.uk](http://www.stevenson-reeves.co.uk)

# DENSITY MEASUREMENT

## SACCHAROMETERS FOR BREWERS & DISTILLERS

Saccharometers are hydrometers designed for use in sugar solutions such as wort. Accurate saccharometer readings will let you calculate the alcohol content of your beer or wash. You can use them to follow the progress of fermentation, and they will also let you keep track of the consistency of other processes in the brewery such as mashing. They will keep their accuracy for many years without needing to be checked. We supply every professional saccharometer with a certificate of accuracy valid for three years from its date of calibration.

Our professional brewing saccharometers give a direct reading of degrees of specific gravity at 20°C, where the scale is based around a reading of 1000° indicating a solution with the same density as water at 20°C. They are available with graduations as fine as 0.1° (one part in ten thousand), an accuracy comparable to electronic densitometers costing many times the price of a set of saccharometers.

### B3010 SERIES

**Range:** 10° gravity in 0.1° graduations

**Size:** 305mm long x 38mm wide

These are our most precise saccharometers. They let you read gravity to the nearest 0.1° and have a certified accuracy of 0.2°, so they are perfect if you need to keep accurate records for SIBA accreditation. These are the easiest way to get the best gravity readings for accurate ABV determination and are suitable for HMRC declarations of the alcohol content of your beer or wash. These are also suitable for use as reference instruments if you want to check the accuracy of other saccharometers when supplied with UKAS calibration certificates or our own works certificates with precise correction values at two or three points on the scale.

**ACCURACY:** ★★★★★

**PRICE: £62.00**

Product Code	° Gravity Range	Product Code	° Gravity Range
B3010/.990	990 to 1000	B3010/035	1035 to 1045
B3010/.993	993 to 1003	B3010/040	1040 to 1050
B3010/.995	995 to 1005	B3010/045	1045 to 1055
B3010/000	1000 to 1010	B3010/050	1050 to 1060
B3010/005	1005 to 1015	B3010/055	1055 to 1065
B3010/010	1010 to 1020	B3010/060	1060 to 1070
B3010/015	1015 to 1025	B3010/065	1065 to 1075
B3010/020	1020 to 1030	B3010/070	1070 to 1080
B3010/025	1025 to 1035	B3010/080	1080 to 1090
B3010/030	1030 to 1040	B3010/090	1090 to 1100



### BREWERS:

Best for ABV determination of beer.  
Suitable for SIBA and HMRC.

### DISTILLERS:

Best for ABV determination of wash.  
Suitable for HMRC.

### CERTIFICATION:

Come with a certificate of accuracy to 0.2° gravity, valid for 3 years. Also suitable for UKAS or works certification showing even more precise corrections (see page 16).

### USE WITH:

Hydrometer jars of at least 50mm diameter. We recommend a wider jar so that you can take simultaneous temperature readings – the BJ3363 jar is ideal (see page 17).

Thermometers with an accuracy of 1°C or better. Our saccharometer jar thermometers on page 19 are ideal.

Correction chart BS15G (see page 16) to allow for corrections when readings are not taken at 20°C.

Our hydrometer stand with 38mm fittings (see page 18) will let you keep a few of these handy on the bench while you are using them. Don't forget to wash and safely store them after use.

### ALSO CONSIDER:

You may not want to use the most precise and fragile saccharometers at every point in your process, and you may want to keep a spare set in case of breakages. Consider the B3030 series (see page 7) for times when a less accurate reading is good enough.

Products shown are held in stock. We can make any other range not shown to order.

## B3020 SERIES

Range: 20° gravity in 0.2° graduations

Size: 305mm long x 38mm wide

These are very precise saccharometers and have graduations to a certified accuracy of 0.2° gravity. You will need to keep records this precise for SIBA accreditation, and these will show that you are producing a beer with consistent quality and ABV. They are suitable for HMRC declarations of the alcohol content of your beer or wash. These are also suitable for use as reference instruments if you want to check the accuracy of other saccharometers when supplied with UKAS calibration certificates or our own works certificates with precise correction values at two or three points on the scale.

ACCURACY: ★★★★★

PRICE: £60.00

Product Code	° Gravity Range
B3020/990	990 to 1010
B3020/000	1000 to 1020
B3020/010	1010 to 1030
B3020/020	1020 to 1040
B3020/030	1030 to 1050
B3020/040	1040 to 1060
B3020/050	1050 to 1070
B3020/060	1060 to 1080
B3020/080	1080 to 1100

## SC2520 DISTILLER'S SERIES

Range: 10° gravity in 0.2° graduations

Size: 250mm long x 38mm wide

Typically used by distillers, these are based on the old specification from Customs and Excise Notice 39 for Distillers and are shorter than the typical brewer's saccharometer. They are very precise saccharometers and have graduations to a certified accuracy of 0.2° gravity. They are suitable for HMRC declarations of the alcohol content of your beer or wash. These are also suitable for use as reference instruments if you want to check the accuracy of other saccharometers when supplied with UKAS calibration certificates or our own works certificates with precise correction values at two or three points on the scale. Stocked in ranges suitable for wash fermentations rather than beer.

ACCURACY: ★★★★★

PRICE: £60.00

Product Code	° Gravity Range
SC2520/993	993 to 1003
SC2520/055	1055 to 1065
SC2520/060	1060 to 1070
SC2520/065	1065 to 1075



### BREWERS:

Best for ABV determination of beer.

Suitable for SIBA and HMRC.

### DISTILLERS:

Best for ABV determination of wash.

Suitable for HMRC.

### CERTIFICATION:

Come with a certificate of accuracy to 0.2° gravity, valid for 3 years. Also suitable for UKAS or works certification showing even more precise corrections (see page 16).

### USE WITH:

Hydrometer jars of at least 50mm diameter. We recommend a wider jar so that you can take simultaneous temperature readings – the BJ3363 jar is ideal (see page 17).

Thermometers with an accuracy of 1°C or better. Our saccharometer jar thermometers on page 19 are ideal.

Correction chart BS15G (see page 16) to allow for corrections when readings are not taken at 20°C.

Our hydrometer stand with 38mm fittings (see page 18) will let you keep a few of these handy on the bench while you are using them. Don't forget to wash and safely store them after use.

### ALSO CONSIDER:

You may not want to use the most precise and fragile saccharometers at every point in your process, and you may want to keep a spare set in case of breakages. Consider the B3030 series (see page 7) for times when a less accurate reading is good enough.

Products shown are held in stock. We can make any other range not shown to order.

# DENSITY MEASUREMENT

## B3030 SERIES

Range: 30° gravity in 0.5° graduations

Size: 305mm long x 34mm

These are precise saccharometers and have graduations to a certified accuracy of 0.5° gravity. These are ideal for checks at any point in the brewing process. A set of two covering up to 1060° will cope with normal strength brews, and a set of three covering up to 1090° will cope with high strength brews as well. They are suitable for HMRC declarations of the alcohol content of your beer or wash.

ACCURACY: ★★★★★

PRICE: £50.00

Product Code	° Gravity Range
B3030/000	1000 to 1030
B3030/030	1030 to 1060
B3030/060	1060 to 1090
B3030/090	1090 to 1120

## B2320 SERIES

Range: 20° gravity in 0.5° graduations

Size: 230mm long x 26mm wide

These are precise saccharometers and have graduations to a certified accuracy of 0.5° gravity. These are ideal for checks at any point in the brewing process and are shorter than our standard saccharometers, so you only need to take a small sample for testing. A set of three covering up to 1060° will cope with normal strength brews, and a set of four covering up to 1080° will cope with most high strength brews as well. They are suitable for HMRC declarations of the alcohol content of your beer or wash.

ACCURACY: ★★★★★

PRICE: £47.00

Product Code	° Gravity Range
B2320/000	1000 to 1020
B2320/020	1020 to 1040
B2320/040	1040 to 1060
B2320/060	1060 to 1080



### BREWERS:

Good for ABV determination of beer and for checks throughout the brewing process. Suitable for HMRC.

### CERTIFICATION:

Come with a certificate of accuracy to 0.5° gravity, valid for 3 years. Also suitable for UKAS or works certification showing even more precise corrections (see page 16).

### USE WITH:

The B3030 series needs hydrometer jars of at least 50mm diameter, such as the BJ3351. The B2320 series only need a jar of at least 40mm diameter, so the SJ2540 is ideal (see page 17).

Thermometers with an accuracy of 1°C or better. Our saccharometer jar thermometers on page 19 are ideal.

Correction chart BS15G (see page 16) to allow for corrections when readings are not taken at 20°C.

Our hydrometer stand with 34mm fittings for the B3030 or 26mm fittings for the B2320 (see page 18) will let you keep a few of these handy on the bench while you are using them. Don't forget to wash and safely store them after use.

### ALSO CONSIDER:

If you want SIBA accreditation, then you will need a more precise saccharometer, so consider the B3020 series (see page 6) for keeping more accurate records of fermentation.

Products shown are held in stock. We can make any other range not shown to order.



## WIDE RANGE SACCHAROMETERS

Range: 50° or 60° gravity in 1.0° graduations

Size: 305mm long x 26mm wide

These saccharometers cover a wide range and have graduations to a certified accuracy of 1.0° gravity. These are ideal for checks at any point in the brewing process where the greatest accuracy is not required.

ACCURACY: ★★★★★

PRICE: £44.00

Product Code	° Gravity Range	Product Code	° Gravity Range
B3050/000	1000 to 1050	B3050/100	1100 to 1150
B3050/050	1050 to 1100	B3060/000	1000 to 1060

## SHORT SACCHAROMETERS

Range: 30°, 40° or, 50° gravity in 1.0° graduations

Size: 230mm long x 26mm wide

These saccharometers for use with small sample volumes have graduations to a certified accuracy of 1.0° gravity. These are ideal for checks at any point in the brewing process and are shorter than our standard saccharometers, so you only need to take a small sample for testing. Measurements below 1000 are suitable for wash or cider making.

ACCURACY: ★★★★★

PRICE: £42.00

Product Code	° Gravity Range	Product Code	° Gravity Range
B2340/990	990 to 1030	B2330/000	1000 to 1030
B2340/030	1030 to 1070	B2330/030	1030 to 1060
B2350/000	1000 to 1050	B2330/060	1060 to 1090
B2350/050	1050 to 1100		

## RANGEFINDER SACCHAROMETERS

Range: 80° gravity in 2.0° graduations

Size: 230mm long x 22mm wide

These saccharometers for use with small sample volumes have graduations to a certified accuracy of 2.0° gravity. These are ideal for a quick check on the progress of mashing or fermentation when you do not need to record the value measured. Measuring below 1000 makes them suitable for wash or cider as well as beer.

ACCURACY: ★★★★★

PRICE: £38.00

Product Code	Gravity Range
B2380/990	990 to 1070



### BREWERS:

Use for quick checks throughout the brewing process. Not usually suitable for HMRC.

### DISTILLERS:

Use for quick checks throughout the brewing process. Not suitable for HMRC.

### CERTIFICATION:

Come with a certificate of accuracy to 1.0° or 2.0° gravity, valid for 3 years. Also suitable for works certification showing corrections (see page 16).

### USE WITH:

These 26mm wide hydrometers need a jar of at least 40mm diameter, so the SJ2540 or SJ3340 are ideal depending on the length of the hydrometer (see page 17).

Thermometers with an accuracy of 2°C or better. Our saccharometer jar thermometers on page 19 are ideal.

Correction chart BS15G (see page 16) to allow for corrections when readings are not taken at 20°C

Our hydrometer rack with 26mm fittings (see page 18) will let you keep a few of these handy on the bench while you are using them. Don't forget to wash and safely store them after use.

### ALSO CONSIDER:

If you only make and sell beer on premises, then these may be all you need to satisfy regulations. If you distribute your beer in bottles, cans or kegs you should use more accurate saccharometers to determine the alcohol content of your beer. Use the B3030 series (see page 7) or better.

Products shown are held in stock. We can make any other range not shown to order.

# DENSITY MEASUREMENT

## CALCULATION OF ALCOHOLIC STRENGTH

### (ACCORDING TO HMRC NOTICE 226)

You may determine the alcoholic strength of your beer by measuring the specific gravity before and after fermentation. The difference between the two values is the attenuation, and you can calculate the alcohol content by multiplying this by a factor (f). In order to make sure that your calculations are accurate, it is essential that the original gravity (OG) be established as soon as possible after taking a sample and before fermentation commences, which will normally be within one hour of completion of filling the fermenting vessel.

### MEASURING THE SPECIFIC GRAVITY

Use a saccharometer graduated in degrees of specific gravity at 20°C and adjust for temperature using the correction chart BS15G (see page 16). A positive correction on the chart should be added to the saccharometer reading, and a negative correction should be subtracted. This adjusts the reading to show the correct gravity of the wort at 20°C.

If the wort is not close to room temperature it may not have a stable temperature, so you should check that both the saccharometer and thermometer readings are stable before recording the value.

### CALCULATING THE ALCOHOLIC STRENGTH

Measure the OG within one hour of taking the sample.

Wait until fermentation is completed - for cask-conditioned beer this will be after secondary fermentation in the casks.

Then take a sample and measure the present gravity (PG) (also known as the specific or final gravity)

When you've taken your readings, calculate the alcoholic strength using the formula:

$$a = (OG - PG) \times f$$

a is the beer's alcoholic strength in %ABV at 20°C

OG is the original gravity of the beer corrected to 20°C

PG is the present gravity of the beer corrected to 20°C

f is the factor connecting the change in gravity to alcoholic strength.

Typical value of factor 'f' for various alcoholic strengths

(OG - PG)	% ABV	FACTOR (F)
17.3 - 26.1	2.2 - 3.3	0.128
26.2 - 36.0	3.3 - 4.6	0.129
36.1 - 46.5	4.6 - 6.0	0.130
46.6 - 57.1	6.0 - 7.5	0.131

The value of 'f' isn't constant because the yield of alcohol isn't constant for all fermentations. In lower strength beers, more of the 'sugars' available for fermentation are consumed in yeast reproduction than in producing alcohol. The table, produced by the Laboratory of the Government Chemist, shows the changing value of 'f' depending on the alcoholic strength of the beer.

## HYDROMETERS FOR DISTILLED SPIRITS

These hydrometers are only suitable for use in mixtures of water and ethanol such as distilled spirits. If the mixture contains anything else such as sugar, you cannot determine alcohol content using a hydrometer reading. In order to accurately determine alcohol content of spirits, you will need to take accurate hydrometer and thermometer readings and use the official tables to calculate the % alcohol content. It is not possible to get an accurate measure of alcohol content direct from a hydrometer reading. All are calibrated specifically for use in ethanol solutions. Alcohol Hydrometers are graduated to read liquid density at 20°C, while alcoholometer and spirit safe hydrometers are graduated to read % ethanol by volume at 20°C. Please note that since the density of the liquid decreases as the percentage of ethanol increases, alcoholometers reading % ethanol have scales going in the opposite direction to other hydrometers!

### BS5470 ALCOHOL HYDROMETERS

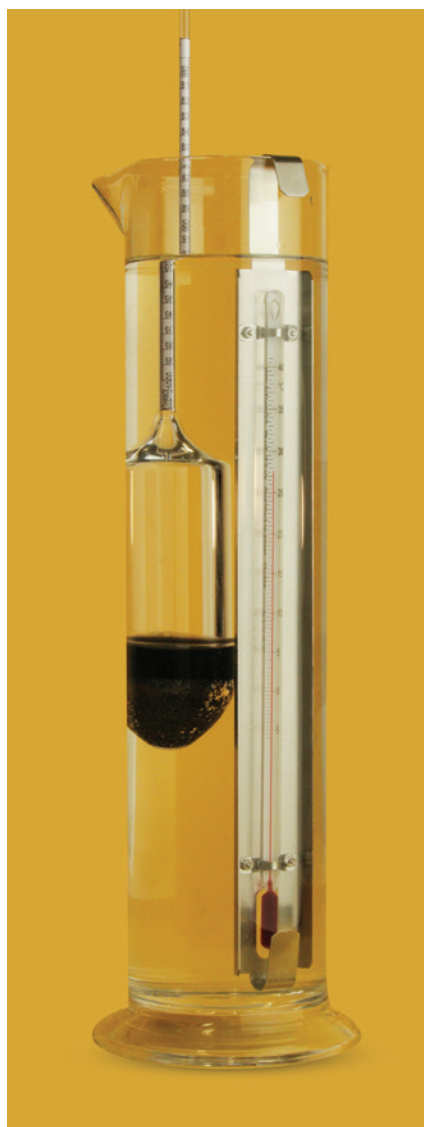
**Range:** 20 kg/m<sup>3</sup> density at 20°C in 0.2 graduations  
**Size:** 305mm long x 38mm wide

These are very precise alcohol hydrometers and have graduations to a certified accuracy of 0.2 kg/m<sup>3</sup> density. They are made to the official BS5470 specification and are kitemarked giving an assurance that our hydrometers always meet that high standard. They are suitable for HMRC declarations of the alcohol content of spirits according to The Spirits Regulations (1991). These are also suitable for use as reference instruments if you want to check the accuracy of other alcohol hydrometers when supplied with UKAS calibration certificates or our own works certificates with precise correction values at two or three points on the scale.

**ACCURACY:** ★★★★★

**PRICE: £62.00**

Product Code	Density Range	Approx. ABV
AB3030/780	780 to 800	Over 97.8%
AB3030/800	800 to 820	92.7% to 97.8%
AB3030/820	820 to 840	86.6% to 92.7%
AB3030/840	840 to 860	79.7% to 86.6%
AB3030/860	860 to 880	72.2% to 79.7%
AB3030/880	880 to 900	64.0% to 72.2%
AB3030/900	900 to 920	55.0% to 64.0%
AB3030/920	920 to 940	44.7% to 55.0%
AB3030/940	940 to 960	31.7% to 44.7%
AB3030/960	960 to 980	14.1% to 31.7%
AB3030/980	980 to 1000	Up to 14.1%



### DISTILLERS:

Best for ABV determination of spirits.  
Suitable for HMRC.

### CERTIFICATION:

Come with a certificate of accuracy to 0.2 kg/m<sup>3</sup> density, valid for 3 years. Also suitable for UKAS or works certification showing even more precise corrections (see page 16).

### USE WITH:

Hydrometer jars of at least 50mm diameter. We recommend a wider jar so that you can take simultaneous temperature readings – the BJ3480 jar is ideal for use with these and our accurate B0446 thermometers (see page 17 for the jar and page 20 for the thermometer).

Thermometers with an accuracy of 0.5°C or better (Accuracy 4\* or better).

Use the Practical Alcohol Tables Volume 2 (see page 16) for alcohol determination.

Our hydrometer stand with 38mm fittings (see page 18) will let you keep a few of these handy on the bench while you are using them. Don't forget to wash and safely store them after use.

### ALSO CONSIDER:

You may not need to use precise and fragile hydrometers at every point in your process. Consider using alcoholometers graduated in % alcohol during production when a simple consistent measurement is more important than an accurate determination of alcohol content.

# DENSITY MEASUREMENT

## SPIRIT SAFE HYDROMETERS

These are short alcoholometers graduated in % Ethanol by Volume at 20°C. They are sized to fit in traditional Scotch Whisky spirit safes and are used for monitoring the progress of your distillation.

### LOW ALCOHOL RANGES

**Range:** up to 8% abv in 0.1% or 0.2% graduations

**Size:** 170mm long x up to 38mm wide

These are very precise alcoholometers used to determine when to finish your distillation once you have taken off the good spirit, and make sure as little of your alcohol goes to waste as possible. They are sized to fit in a typical spirit safe, but the wide body makes them unsuitable if you are taking measurement in a still with a parrot's beak.

**ACCURACY:** ★★★★★ **PRICE: £50.00**

Product Code	% Alcohol Range
AC1706/00	0 to 3% in 0.1%
AC1716/00	0 to 6% in 0.2%
AC1718/00	0 to 8% in 0.2%

### CUTTING RANGES

**Range:** up to around 80% abv in 0.5% or 1.0% graduations

**Size:** 175mm long x 19mm wide

These accurate alcoholometers ideal for giving an indication of the progress of your distillation and when to make your cuts

**ACCURACY:** ★★★★★ **PRICE: £46.00**

Product Code	% Alcohol Range
AC1734/55	55 to 80% in 0.5%
AC1835/50	50 to 80% in 0.5%

**ACCURACY:** ★★★★★ **PRICE: £44.00**

Product Code	% Alcohol Range
AC1742/50	50 to 80% in 1.0%
AC1744/40	40 to 85% in 1.0%
AC1746/30	30 to 80% in 1.0%



### DISTILLERS:

Use to track distillation during the production of spirits. Not suitable for HMRC declarations.

### CERTIFICATION:

Come with a certificate of accuracy to one scale division, valid for 3 years. Also suitable for UKAS or works certification showing even more precise corrections (see page 16).

### USE WITH:

Use these in a traditional Scotch Whisky spirit safe. Narrower hydrometers can also be used in small craft stills with a parrot's beak style overflow jar.

Use with a spirit safe thermometer (see page 23) and Practical Alcohol Tables Volume 1 (see page 16) if you need to know the actual % alcohol content rather than just the hydrometer reading.

### ALSO CONSIDER:

Ranges shown are held in stock. We can make alcoholometers to your exact specification if the ones shown are not suitable for your process.

### USING ALCOHOLOMETERS:

An alcoholometer reading will not indicate the correct % alcohol by volume without correcting for temperature. A variation of 0.5°C in the temperature of the spirit will lead to an error of up to 0.2% ABV if uncorrected.



## WIDE RANGE ALCOHOLOMETERS

Range: Various % abv ranges in 1.0% or 2.0% graduations

Size: 19mm wide in 300mm or 175mm lengths

Use these hydrometers for checks during the production of spirits or as a rangefinder to determine which of your more accurate hydrometers you need. Any of them should fit in a typical parrot's beak found on small stills, and the shorter hydrometers are suitable for use in a traditional Spirit Safe.

ACCURACY: ★★★★★

PRICE: £43.00

Product Code	% Alcohol Range	Length
AC1759/00	0 to 60% in 2.0%	175mm
AC1744/60	60 to 100% in 1.0%	175mm
AC3056/00	0 to 100% in 1.0%	300mm



## SPIRIT SAFE BOWLS

We can produce replacement bowls for your spirit safe. These are made to order, so we will need the shape and dimensions. A typical bowl of the type shown has a cylindrical base outlet of diameter 70mm, a bowl diameter of 220mm and a cut out of diameter 170mm.

PRODUCT CODE: AC00/BOWL

PRICE: ON ENQUIRY



## SPIRIT SAFE TUBES

We can produce replacement tubes for your spirit safe. The spirit safe tubes have an external diameter of 70mm and glass thickness of 5mm. We usually stock a standard length of 200mm. If you require other lengths, just let us know and we will produce the size you need.

PRODUCT CODE: AC00/TUBE

PRICE: £44.00

# DENSITY MEASUREMENT

## PRECISION ALCOHOLOMETERS

Range: 20% Ethanol by Volume at 20°C in 0.2% graduations

Size: 300mm long x 26mm wide

Use these for alcohol determination of spirits where the highest accuracy is not required. These are also suitable for use when you are doing a distillation analysis of beers, wines or liqueurs (see the Thorpe Still on page 41).

ACCURACY: ★★★★★

PRICE: £54.00

Product Code	% Alcohol Range
AC3030/00	0 to 20%
AC3030/10	10 to 30%
AC3030/20	20 to 40%
AC3030/30	30 to 50%
AC3030/40	40 to 60%
AC3030/60	60 to 80%
AC3030/80	80 to 100%

## ISO4801 ALCOHOLOMETERS

Range: 10% Ethanol by Volume at 20°C in 0.1% graduations

Size: 340mm long x 26-34mm wide

These are very precise alcoholometers and have graduations to a certified accuracy of 0.1% ABV at 20°C. When used with a suitable thermometer they will provide a determination of ABV similar to the BS5470 alcohol hydrometers. An uncorrected reading from the hydrometer can easily be out by around 1%, so you should never use the direct hydrometer reading as a determination of alcohol content.

ACCURACY: ★★★★★

PRICE: £79.00

Product Code	% Alcohol Range
AC3413/00	0 to 10%
AC3413/10	10 to 20%
AC3413/20	20 to 30%
AC3413/30	30 to 40%
AC3413/40	40 to 50%
AC3413/50	50 to 60%
AC3413/60	60 to 70%
AC3413/70	70 to 80%
AC3413/80	80 to 90%
AC3413/90	90 to 100%



### DISTILLERS:

Use for ABV determination of Spirits. Suitable for distillation analysis. Not recommended for HMRC spirits declarations.

### CERTIFICATION:

Come with a certificate of accuracy to one scale division, valid for 3 years. Also suitable for UKAS or works certification showing even more precise corrections (see page 16).

### USE WITH:

The AC3030 precision alcoholometers need hydrometer jars of at least 40mm diameter. Use a wider jar if you want to keep a thermometer in the jar alongside the hydrometer for more reliable temperature readings (see page 17).

The AC3413 precision alcoholometers should be used hydrometer jars of at least 50mm diameter. Use a wider jar if you want to keep a thermometer in the jar alongside the hydrometer for more reliable temperature readings (see page 17).

Thermometers with an accuracy of 0.5°C or better (Accuracy 4\* or better).

Use the Practical Alcohol Tables Volume 1 (see page 16) for alcohol determination.

Our hydrometer stands (see page 18) will let you keep a few of these handy on the bench while you are using them. Don't forget to wash and safely store them after use.

### ALSO CONSIDER:

The alcohol hydrometers to BS5470 (see page 10) are the instruments generally accepted by HMRC for measuring the strength of spirits.

We can produce plain for hydrometers to any specification, for example alcoholometer to Australian Standard AS 2371.

### USING ALCOHOLOMETERS:

An alcoholometer reading will not indicate the correct % alcohol by volume without correcting for temperature. A variation of 0.5°C in the temperature of the spirit will lead to an error of up to 0.2% ABV if uncorrected.

## SACCHAROMETERS WITH SUGAR SCALES

Sugar scale saccharometers are commonly used on the continent for beer and wine making. They are scales based on the percentage of dissolved sugar in water. The Brix and Plato scales were determined from different studies of the density of sugar solutions, but the difference between the two scales at 20°C is never more than 0.002%; this is far less than the smallest division of a saccharometer so the two scales can be used interchangeably.

### PRECISION PLATO SACCHAROMETERS

**Range:** 4° Plato at 20°C in 0.05° graduations - **Size:** 305mm long x 38mm wide

These are very precise saccharometers and have graduations to a certified accuracy of 0.05° Plato. Use these when you want the highest accuracy from a saccharometer with a sugar scale.

**ACCURACY:** ★★★★★

**PRICE: £60.00**

Product Code	Plato Range
SP3004/00	0 to 4
SP3004/04	4 to 8
SP3004/08	8 to 12
SP3004/12	12 to 16
SP3004/16	16 to 20

### 10° BRIX SACCHAROMETERS

**Range:** 10° Brix at 20°C in 0.1° graduations - **Size:** 305mm long x 26mm wide

These are precise saccharometers and have graduations to a certified accuracy of 0.1° Brix. These are ideal for wine-making if you want a saccharometer with a sugar scale.

**ACCURACY:** ★★★★★

**PRICE: £42.00**

Product Code	Brix Range
SB3013/0/-5	-5 to +5
SB3013/00	0 to 10
SB3013/10	10 to 20
SB3013/20	20 to 30

### 20° BRIX SACCHAROMETERS

**Range:** 10° Brix at 20°C in 0.2° graduations

**Size:** 305mm long x 26mm wide

These saccharometers have graduations to a certified accuracy of 0.2° Brix.

**ACCURACY:** ★★★★★

**PRICE: £38.00**

Product Code	Brix Range
SB3030/00	0 to 20
SB3030/20	20 to 40

### BREWERS:

Useful if you are used to continental brewing methods.

### CERTIFICATION:

Come with a certificate of accuracy to one scale division, valid for 3 years. Also suitable for UKAS or works certification showing even more precise correction (see page 16).

### USE WITH:

The SP3004 saccharometers need a hydrometer jar of at least 50mm diameter, such as the BJ3351. The SB3013 and SB3030 saccharometers only need a jar of at least 40mm diameter (see page 17).

Thermometers with an accuracy of 1°C or better.

Correction chart BX15G (see page 16) to allow for corrections when readings are not taken at 20°C.

Our hydrometer stand with 38mm fittings for the SP3004 or 26mm fittings for the SB3013 or SB3030 (see page 18) will let you keep a few of these handy on the bench while you are using them. Don't forget to wash and safely store them after use.

### ALSO CONSIDER:

These are usually made to order, since we do not hold stock of these saccharometers. We can make plain form Brix or Plato hydrometers to your exact specification if the ones shown are not suitable for your process.





# DENSITY MEASUREMENT

## BAR SPIRIT TESTING KIT

This kit is for testing opened bottles of spirits to make sure there has been no evaporation of alcohol or watering down. It is suitable for any pure spirits which contain no sugar, such as Vodka, Whisky and Gin. It is not possible to test liqueurs with this kit, and some Brandy and Rum will also contain enough sugar to give an incorrect reading if tested with this kit. Simply put a 50ml measure of the spirit in the jar, take hydrometer and thermometer readings, and the provided chart will show you the alcohol content of the spirit.

PRODUCT CODE: B0141

PRICE: £102.00

## HYDROMETERS FOR BAR TESTING KIT

The standard hydrometer included with the kit (B0141/H1) tests normal strength spirits. It covers a density range of 940 to 960 kg/m<sup>3</sup> in 1 kg/m<sup>3</sup> divisions. For higher strengths up to 55% an extra hydrometer is needed.

ACCURACY: ★★★★★

PRICE: £36.00

Product Code	Density Range	Approx. ABV
B0141/H1	940 to 960	33% to 45%
B0141/H2	920 to 940	45% to 55%

## THERMOMETER FOR BAR TESTING KIT

This is a short red spirit filled thermometer, measuring the range 0 to 40°C in 1°C graduations.

PRODUCT CODE: B0141/T1

PRICE: £10.00

## SAMPLE JAR FOR BAR TESTING KIT

This glass sample jar lets the hydrometer float in a 50ml sample to take a reading.

PRODUCT CODE: B0141/J50

PRICE: £10.00

## CHART FOR BAR TESTING KIT

The chart tells you the alcohol content of the spirit when you look up the hydrometer and thermometer readings.

PRODUCT CODE: B0141/CH

PRICE: £5.50

## CASE FOR BAR TESTING KIT

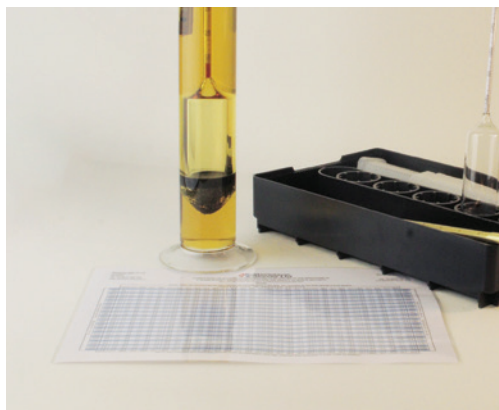
The smart case keeps the kit protected when not in use and can also be used as a base when you are using the kit to keep everything safe and stable.

PRODUCT CODE: B0141/LC

PRICE: £46.00





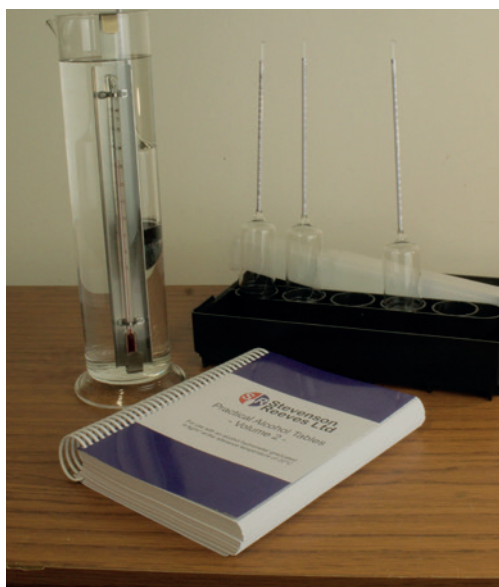


## CORRECTION CHART FOR GRAVITY SACCHAROMETERS

Use this chart with any of our saccharometers reading degrees of specific gravity at 20°C (see pages 5 to 8). Provides corrections for temperatures from 2 to 32°C.

**PRODUCT CODE: BS15G**

**PRICE: £5.00**



## CORRECTION CHART FOR SUGAR SCALE SACCHAROMETERS

Use this chart with our sugar scale saccharometers reading Brix or Plato (see page 14). Provides corrections for temperatures from 10 to 32°C.

**PRODUCT CODE: BX15G**

**PRICE: £5.00**

## ALCOHOL TABLES FOR ALCOHOL HYDROMETERS - kg/m<sup>3</sup>

Practical Alcohol Tables, Volume 2 - use with BS5470 Alcohol hydrometers measuring kg/m<sup>3</sup> (see page 10) to determine the strength of spirits. Suitable for use for temperatures from 10 to 45°C. Also provides a table to correct bulk volume measurements of spirits for different temperatures.

**PRODUCT CODE: B0260**

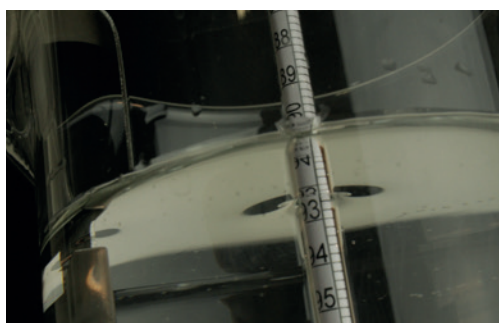
**PRICE: £27.00**

## ALCOHOL TABLES FOR ALCOHOLOMETERS - % Volume

Practical Alcohol Tables, Volume 1 - use with Alcoholometers measuring % ethanol by volume (see pages 11 to 13) to determine the strength of spirits. Suitable for use for temperatures from -20 to +40°C. Also provides a table to correct bulk volume measurements of spirits for different temperatures.

**PRODUCT CODE: AC00/TABLE**

**PRICE: £27.00**



## CERTIFICATION OF HYDROMETERS

All our professional hydrometers and saccharometers are supplied with a certificate confirming that they are accurate to within their specified tolerances. Since hydrometers are very reliable measuring instruments, these are valid for three years from the date of manufacture. After three years, if you send the instrument back to us, we can retest it and issue a further certificate valid for three years. It is a good idea to check hydrometers regularly for damage or any build-up of solids, since these will affect the hydrometer reading.

If you want a calibration certificate with corrections in order to make a better estimate of readings of fractions of a division, we can provide works certificates showing corrections at two or three points.

For the best assurance of accuracy, or if you are using a hydrometer as a reference, we would recommend a 4-point calibration certificate from a UKAS certified testing lab.

B/CC	Stevenson Reeves Certificate of Conformance	£24.50
B/C2	Stevenson Reeves 2-Point Calibration Certificate	£31.50
B/C3	Stevenson Reeves 3-Point Calibration Certificate	£36.00
B/CK	UKAS 4-Point Calibration Certificate	£180.00

# DENSITY MEASUREMENT

## HYDROMETER JARS

A variety of jars are available suitable for taking hydrometer readings. Glass jars without graduations make it easiest to take a reading, and graduated measuring cylinders can also be used. The measuring cylinders are usually taller than our clear glass jars, so you will need a larger sample to use them. Our plastic cylinders are made from clear PMP – this is a very clear and chemically resistant plastic, though over time and regular use they may get fine scratches and some yellowing unlike glass which will last for many years if not broken.

### 80mm DIAMETER JARS

Ideal for hydrometers up to 38mm wide when used with the B0446 steel backed spirit thermometer. Ideal for the AB3030 series of Alcohol Hydrometers which must be used with an accurate thermometer. Sample volume of over 1500ml required.

Product Code	Jar Height	Type	Price
BJ3480	340mm	Glass Ungraduated	£49.90
BJ3480/NL	340mm	Glass Ungraduated, No Lip	£59.30
B1524/T/2000	520mm	Plastic Graduated	£80.80

### 50mm DIAMETER JARS

Ideal for hydrometers up to 34mm wide. If you need to use 38mm hydrometers you should take temperature readings before and after the hydrometer reading, since they will not fit alongside a thermometer.

Product Code	Jar Height	Type	Price
BJ2551	250mm	Glass Ungraduated	£23.40
BJ3351	330mm	Glass Ungraduated	£28.70
BJ3650	350mm	Plastic Ungraduated	£37.00
B1524/0500	360mm	Glass Graduated	£33.80
B1524/T/0500	350mm	Plastic Graduated	£34.10

### 65mm DIAMETER JARS

Ideal for hydrometers up to 38mm wide, these jars are wide enough to fit a slim thermometer in the jar to take simultaneous readings. Use along with the B0509/HJS thermometers or digital probes if better accuracy is needed

Product Code	Jar Height	Type	Price
BJ3363	330mm	Glass Ungraduated	£40.20
B1524/1000	440mm	Glass Graduated	£56.20
B1524/T/1000	420mm	Plastic Graduated	£47.50

### 40mm DIAMETER JARS

Ideal for hydrometers up to 26mm wide when you do not want to take a large sample for testing.

Product Code	Jar Height	Type	Price
SI3340	330mm	Glass Ungraduated	£21.00
SI3040	300mm	Glass Ungraduated	£20.00
SI2540	250mm	Glass Ungraduated	£19.00
B1524/0250	310mm	Glass Graduated	£21.60
B1524/T/0250	300mm	Plastic Graduated	£21.70



## HYDROMETER STAND

Our new hydrometer stands have been designed to hold your hydrometers while you are working with them. They consist of a wide base (300mm x 200mm) with inserts suited to each different size of hydrometer bulb. The wide base ensures the stability of the stand, and the sturdy plastic can easily be washed along with your hydrometers.

**PRICE: £45.00**

Product Code	Size	Holds	Use With
B4138	38mm	Up to 5	B3010, B3020, AB3030
B4134	34mm	Up to 5	B3030
B4126	26mm	Up to 7	B3050, B2320
B4122	22mm	Up to 7	B2380

## EXTRA INSERTS

The holders are engineered to exactly fit one size of hydrometer and will hold them stable by the base. This means you can lift the hydrometers in and out by the large bulb rather than the fragile stem – you should only hold a hydrometer by the stem when lowering it into a liquid to take a reading or lifting it out again.

**PRICE: £13.00**

Product Code	Size	Holds	Use With
B4038	38mm	Up to 5	B3010, B3020, AB3030
B4034	34mm	Up to 5	B3030
B4026	26mm	Up to 7	B3050, B2320
B4022	22mm	Up to 7	B2380

## CARRYING CASE FOR ALCOHOL HYDROMETERS

This is a sturdy lockable flight case with a foam lining designed to hold six AB3030 alcohol hydrometers (see page 10) and one B0446 thermometer (see page 20). It provides more protection than our standard packaging for storage and transport of a set of these hydrometers.

**PRODUCT CODE: B0270**

**PRICE: £252.00**

## SPARE FOAM INSERTS

**PRODUCT CODE: B0270/L**

**PRICE: £79.00**



# TEMPERATURE MEASUREMENT



## SACCHAROMETER JAR THERMOMETER

Range: -10 to +50°C

Accuracy:  $\pm 0.5^\circ\text{C}$  at  $20^\circ\text{C}$  Accuracy: ★★★★★

Use these with any of our Saccharometers (see pages 5 to 8). These are -10 to +50°C lab thermometers with 0.5°C divisions in a metal case with a sprung clip allowing them to be positioned at the correct immersion depth in a hydrometer jar, these thermometers are ideal for use with any of our saccharometers. If you are calculating the ABV of your beer using saccharometers, an error of 0.5°C in the temperature measurement will lead to an error of less than 0.02% ABV.

Product Code	Case Type	Price
B0509/HJS	Stainless-Steel Case	£39.00
B0509/HJB	Brass Case	£23.50



## GENERAL-PURPOSE LAB THERMOMETERS

These are general purpose spirit filled lab thermometers, 305mm long and calibrated for use with a 76mm immersion into the liquid being tested. They are accurate to within one division at 20°C and are suitable for temperature checks where the highest precision is not required.

ACCURACY: ★★★★★ PRICE: £8.00

Product Code	Temperature Range
B0509/1	-10 to +50°C in 0.5°C
B0509/2	-10 to 110°C in 1.0°C

## LAB THERMOMETER CASES

Cases for our lab thermometers are also available separately.

Product Code	Case Type	Price
B0500/SSC	Stainless-Steel Case	£31.50
B0500/SBC	Brass Case	£16.00
B0500/CLIP	Spring Clip for Cases	£2.70

### BREWERS:

Use our Saccharometer Jar Thermometer when taking your Saccharometer Readings.

### CERTIFICATION:

Comes with a serial number to help keep records of accuracy checks. We can supply these with works certificates showing that the thermometers have been tested and are reading accurately. Alternatively, it is simple to check your own thermometers using one of our reference thermometers (see page 24). These spirit-filled thermometers are not suitable for UKAS certification.

### USE WITH:

If you are using our saccharometer jar thermometers, then a 63mm diameter jar will let you keep the thermometer in the jar while you take your saccharometer readings. This will give you the most accurate temperature readings. If you are using a narrower jar, then you may need to take the thermometer out of the jar between each saccharometer reading. Suitable jars are on page 17.

Use a suitable chart or set of tables (see page 16) to correct your hydrometer readings.

### ALSO CONSIDER:

Any of our electronic thermometers will also be suitable for use when taking saccharometer readings. If you have one of our thermometers with a 1m long probe for checking tanks and vats, then get a short probe to use it with your saccharometers too.

If you would like a spirit filled thermometer that is easier to read and more accurate, then our B0446 precision hydrometer jar thermometer is a better choice.





## PRECISION HYDROMETER JAR THERMOMETER

**Range:** -5 to +40°C in 0.5°C

**Accuracy:**  $\pm 0.5^\circ\text{C}$  between -5 to 40°C

**Accuracy:** ★★★★★

Use these when checking the ABV of spirits with our BS5470 Alcohol Hydrometers (see page 10). Made to a higher specification than the general-purpose thermometers, these have easier to read scales and are accurate to within 0.5°C across the full range of the scale. They are calibrated for reading when completely immersed in the liquid and are supplied with a stainless-steel case which allows them to hang inside a hydrometer jar. If you are checking the ABV of spirits using a hydrometer, an error of 0.5°C in the temperature measurement will lead to an error of up to 0.2% ABV.

**PRODUCT CODE:** B0446

**PRICE:** £91.00

## SPARE THERMOMETERS

These are red spirit filled lab thermometers, 245mm long and calibrated for use with total immersion into the liquid being tested. They are accurate to within 0.5°C and are suitable for ABV checks of spirits for HMRC declarations.

**PRODUCT CODE:** B0446/TUBE

**PRICE:** £47.00



### DISTILLERS:

Use our Precision Hydrometer Jar Thermometer when checking the ABV of spirits.

### CERTIFICATION:

Comes with a serial number to help keep records of accuracy checks. We can supply these with works certificates showing that the thermometers have been tested and are reading accurately. Alternatively, it is simple to check your own thermometers using one of our reference thermometers (see page 24). These spirit-filled thermometers are not suitable for UKAS certification if they will be in constant use, but if stored carefully can be used as a reference thermometer.

### USE WITH:

If you are using our precision hydrometer jar thermometers, then an 80mm diameter jar will let you keep the thermometer in the jar while you take your hydrometer readings. This will give you the most accurate temperature readings. If you are using a narrower jar, then you will need to take the thermometer out of the jar while you take the hydrometer reading. In this case, you should take thermometer readings before and after the hydrometer reading to ensure the temperature is stable. Suitable jars are on page 17.

Use a suitable chart or set of tables (see page 16) to correct your hydrometer readings.

### ALSO CONSIDER:

Our more accurate electronic thermometers are also suitable for use with alcohol hydrometers – look for thermometers with better than 0.5°C accuracy, marked 4\* or 5\*.

If you want the most accurate temperature measurement when checking spirits, then you should use one of our most precise electronic thermometers. These are available on page 24. The Reference Thermometer is accurate to 0.05°C.

### USING GLASS THERMOMETERS

Always store glass thermometers at an angle with the bulb lower than the top of the thermometer. If they are left lying flat, then the spirit column can split causing an incorrect reading.

When taking any thermometer reading, please be patient! It can take a while for the thermometer to reach the same temperature as the liquid it is put in, so leave it for a while to make sure the reading is stable.



# TEMPERATURE MEASUREMENT

## LAB QUALITY DIGITAL THERMOMETERS WITH LUMBERG PROBES (T-TYPE OR THERMISTOR)

Range: -200°C to +400°C with 0.1°C resolution

Accuracy:  $\pm 0.5^\circ\text{C}$  between  $-50^\circ\text{C}$  and  $150^\circ\text{C}$

Accuracy: ★★★★★

These are highly accurate electronic thermometers with interchangeable probes. The thermometer body is robust and waterproof, and the probes attach using a waterproof Lumberg connector which screws securely to the thermometer. The probes can be either Thermistor or type T thermocouple. These have a range and accuracy ideal for use in breweries or distilleries.

## COMPLETE THERMOMETER WITH 1M PROBE

Use these for taking temperature measurements in large vessels such as your mash tun or fermenting vat. This thermometer comes with a 1 metre long probe on a 2m long coiled cable. The probe has a rounded tip with a reduced size for faster readings.

PRODUCT CODE: B0375

PRICE: £250.00

## SPARE PROBES

The two shorter probes in 130mm and 300mm lengths use thermistor probes for greater accuracy ( $\pm 0.4^\circ\text{C}$ ) – ideal for use with any of our saccharometers or alcohol hydrometers. The two longer probes use type T thermocouple probes for faster response times when testing in tanks and vats. Long probes have rounded ends for use in liquids rather than sharp points for penetrating solids.



## BREWERS:

Ideal for use in large vessels.

## DISTILLERS:

Ideal for use in large vessels.

## CERTIFICATION:

Comes with a manufacturer's certificate of conformance. Suitable for UKAS certification. Alternatively, it is simple to check your own thermometers using one of our reference thermometers (see page 24).

## USE WITH:

Used with the long probes, this thermometer is ideal for use in various tanks and vessels around a brewery or distillery – check your mash, wort or fermentation temperatures using these.

Used with the short probes, this thermometer is ideal for checking temperatures when taking hydrometer or saccharometer readings. Use a suitable chart or set of tables (see page 16) to correct your hydrometer readings.

## ALSO CONSIDER:

If you already have probes or thermometer with green cables and 2-pin plugs, these are type K probes. They are not as accurate, but if you want a compatible thermometer and probes see page 22.

With electronic thermometers the total system accuracy comes from variations in both the probe and the electronics. With these thermometers, the electronic thermometer box has an accuracy of  $\pm 0.2^\circ\text{C}$ , with the rest of the uncertainty coming from the probe.

## PROTECTIVE CASE

Rubber case with stand and magnet so that you can place the thermometer on a flat surface or attach it to a steel surface.

PRODUCT CODE B0375/SB

PRICE: £14.00

## THERMOMETER UNIT ONLY

This is a waterproof thermometer without any probes. It can be used with any of our Thermistor or type T probes which connect to it using a Lumberg connector.

PRODUCT CODE: B0375/T22P PRICE: £100.00



## GENERAL PURPOSE DIGITAL THERMOMETERS WITH K-TYPE PROBES

Range: -100 to +1372°C with 0.1°C resolution

Accuracy:  $\pm 2.0^\circ\text{C}$  between  $-40$  and  $+150^\circ\text{C}$

Accuracy: ★★★★★

These are general purpose electronic thermometers with interchangeable probes. The thermometer body is robust and waterproof, and the probes simply plug into the thermometer using a 2-pin mini plug connector. Use these if you need compatibility with other type K thermometers or probes.

### COMPLETE THERMOMETER WITH 1M PROBE

Use these for taking temperature measurements in large vessels such as your mash tun or fermenting vat. This thermometer comes with a 1 metre long probe on a 2m long coiled cable. The probe has a rounded tip with a reduced size for faster readings.

PRODUCT CODE: B0370

PRICE: £210.00

### SPARE PROBES

The two shorter probes in 130mm and 300mm lengths use high accuracy probes for greater accuracy ( $\pm 1.0^\circ\text{C}$ ) – suitable for use with saccharometers. The two longer probes use standard type K thermocouple probes for use in a wide range of temperatures.

Product Code	Length	Price
B0373/P130	130mm	£37.00
B0373/P300	300mm	£50.00
B0371	1 metre	£125.00
B0372	2 metre	£180.00

### THERMOMETER UNIT ONLY

This is a waterproof thermometer without any probes. It can be used with any type K probe with a 2-pin mini plug connector.

PRODUCT CODE: B0370/TW

PRICE: £90.00

### PROTECTIVE CASE

Rubber case with stand and magnet so that you can place the thermometer on a flat surface or attach it to a steel surface.

PRODUCT CODE B0375/SB

PRICE: £14.00



### BREWERS:

Ideal for use in large vessels.

### DISTILLERS:

Ideal for use in large vessels.

### CERTIFICATION:

Comes with a manufacturer's certificate of conformance. Suitable for UKAS certification. Alternatively, it is simple to check your own thermometers using one of our reference thermometers (see page 24).

### USE WITH:

Used with the long probes, this thermometer is suitable for use in various mash tuns, fermenting vessel or other large tanks and vats around the brewery or distillery.

Used with the short probes, this thermometer is suitable for checking temperatures when taking saccharometer readings. Use a suitable chart or set of tables (see page 16) to correct your readings. Not suitable for use with alcohol hydrometers for determining spirit strength.

### ALSO CONSIDER:

While they are very common and reliable, type K thermocouple probes are the least accurate electronic thermometer technology. If you want better accuracy, you will need a thermometer with thermistor or type T thermocouple probes – see page 21.

When taking any thermometer reading, please be patient! It can take a while for the thermometer to reach the same temperature as the liquid it is put in, so leave it for a while to make sure the reading is stable. Larger probes take longer to reach a stable temperature due to their thermal mass.

130mm probes should reach a stable reading in around 30 seconds, while probes that are a metre long or more can take up to two minutes to give a stable reading.



# TEMPERATURE MEASUREMENT



## SPIRIT SAFE THERMOMETERS

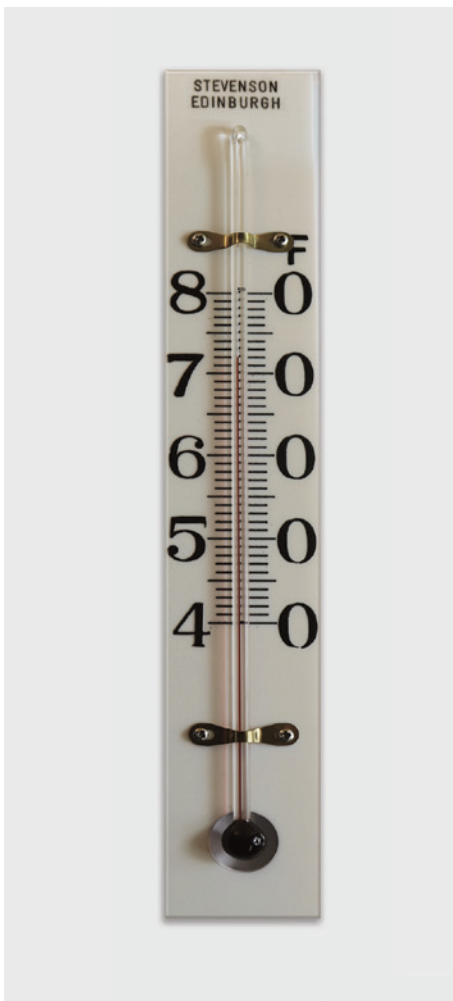
Come with serial numbers and are suitable for works certification.

Use these in a traditional Scotch Whisky Spirit Safe. They have a clip at the back for mounting onto the spirit safe tube, and durable engraving which will not fade.

ACCURACY: ★★★★★

PRICE: £60.00

Product Code	Temperature Range
B0546/1	0 to 45°C in 1.0°C
B0546/2	0 to 60°C in 1.0°C
B0546/3	0 to 80°C in 1.0°C



## 10" SAMPLE CUP THERMOMETERS

Come with serial numbers and are suitable for works certification.

Measuring 10" long by 1" wide, these are replacement thermometers for use in metal sample cups used for testing samples from tanks and vats. The glass thermometer tubes, filled with a non-toxic liquid are attached to a plastic back, which has the scale engraved on it.

ACCURACY: ★★★★★

PRICE: £64.00

Product Code	Temperature Range
B0415	40 to 80°F in 2.0°F
B0420	5 to 28°C in 1.0°C
B0536	10 to 45°C in 1.0°C



## WORKS CERTIFICATION OF GLASS THERMOMETERS

A works certificate of accuracy can be supplied with any of our new glass thermometers which have serial numbers. You can also send thermometers back to us to be retested if you do not have a suitable reference thermometer to perform your own tests. The certificate states that the thermometer is working within its specification.

PRODUCT CODE: B0500/CC

PRICE: £24.50





## REFERENCE LAB THERMOMETER

Range: -5°C to +105°C in 0.2°C

Accuracy:  $\pm 0.2^\circ\text{C}$  between -50°C and 150°C

Accuracy: ★★★★★

This is a 375mm long spirit filled thermometer suitable for use as a reference standard or for precision lab use. If used as a standard it should be carefully stored and only used for testing other thermometers. Available with or without UKAS certification. Uncertified thermometers are available ex stock. Please allow a 3-week lead time for UKAS certified thermometers.

Product Code		Price
B0519/3SB	No Certificate	£43.00
B0519/3UKAS	With UKAS Certificate	£133.00



## REFERENCE DIGITAL THERMOMETER

Range: -200°C to +400°C with 0.01°C resolution

Accuracy:  $\pm 0.05^\circ\text{C}$  between -50°C and 150°C

Accuracy: ★★★★★

This is a high accuracy PT100 digital thermometer with a 1/10th DIN probe, supplied with a 5-point UKAS Certificate of Calibration. It has a permanently attached 130mm long probe on a one metre PVC lead.

PRODUCT CODE: B0392

PRICE: £240.00

## REFERENCE THERMAPEN®

Range: -200°C to +400°C with 0.01°C resolution

Accuracy:  $\pm 0.07^\circ\text{C}$  between -50°C and 150°C

Accuracy: ★★★★★

This is a high accuracy PT100 digital thermometer, supplied with a 5-point UKAS Certificate of Calibration. It has a 108 mm long probe, that conveniently folds back into the side of the instrument when not in use. Suitable for UKAS certification.

PRODUCT CODE: B0394

PRICE: £140.00

## UKAS CERTIFICATES FOR REFERENCE THERMOMETERS

If you need to renew the UKAS certification for your reference thermometers, we provide UKAS calibration certificates with corrections at 5 points.

PRODUCT CODE: B0300/UKAS

PRICE: £90.00



# TEMPERATURE MEASUREMENT



## INTEGRATED PROBE DIGITAL THERMOMETERS



### PRECISION DIGITAL THERMOMETER

Range: -50°C to +300°C with 0.1°C resolution  
Accuracy:  $\pm 0.4^\circ\text{C}$  between -50°C and 200°C

Accuracy: ★★★★★

This precise digital thermometer has a 100mm penetration probe attached by a 300mm lead. Comes with a manufacturer's certificate of conformance. Suitable for UKAS certification.

**PRODUCT CODE: B0365/TT2**

**PRICE: £100.00**



### PRECISION DIGITAL THERMOMETERS WITH PT100 PROBES

Range: -200°C to +400°C with 0.1°C resolution  
Accuracy:  $\pm 0.35^\circ\text{C}$  between -50°C and 150°C

Accuracy: ★★★★★

Use this thermometer when you need the highest accuracy – for example when testing the strength of spirits using a hydrometer. It comes with a 130mm long platinum resistance PT100 Class A liquid probe. Probes are replaceable, and other sizes of probe can be made to order. Suitable for UKAS certification.

**PRODUCT CODE: B0390**

**PRICE: £173.00**



### FOLDING PROBE DIGITAL THERMOMETER

Range: -50°C to +300°C with 0.1°C resolution  
Accuracy:  $\pm 0.4^\circ\text{C}$  between -50°C and 200°C

Accuracy: ★★★★★

This accurate pocket digital thermometer has a 108mm long folding probe. Comes with a manufacturer's certificate of conformance. Suitable for UKAS certification.

**PRODUCT CODE: B0362/TP**

**PRICE: £44.00**



## POCKET DIGITAL THERMOMETER

**Range:** -50°C to +300°C with 0.1°C resolution

**Accuracy:** ±0.4°C between -50°C and 200°C

**Accuracy:** ★★★★★

This general-purpose pen-type pocket digital thermometer is waterproof, and suitable for a variety of situations, as long as you do not need a long probe or traceable certification. The penetration probe is 120mm, and the probe cover can be used as a handle, making the total reach of the thermometer 320mm.

**PRODUCT CODE:** B0360/WP

**PRICE:** £19.50



## CELLAR THERMOMETER

This beer cellar thermometer is red spirit filled and has a moulded plastic frame. The range covered is -20 to +50°C (0 to 120°F) with ideal cellar temperature highlighted at 12°C (54°F). Can be printed with your name and logo for orders of 500 or more.

**PRODUCT CODE:** B0471

**PRICE:** £5.00

# pH TESTING

A pH meter tests the acidity (low pH) or alkalinity (high pH) of a solution. During the brewing process there are many times when the correct pH is crucial for maintaining a consistent and quality product.

## 8100 PLUS pH METER KIT

Resolution: 0.01pH Accuracy:  $\pm 0.02$ pH

Accuracy: ★★★★★

This pH meter kit includes a waterproof and accurate pH meter with pH and temperature probes. With such an accurate instrument the readings should be compensated for temperature – this can be done automatically or manually using this meter. The kit also includes 700 pH and 4.01 pH buffer solutions for calibration and a convenient carrying case.

PRODUCT CODE: B0620/PPK

PRICE: £203.00



### WHEN TO MEASURE YOUR pH MASHING:

Look for a pH of 5.2-5.6 in order to get the best extract yield. If the pH is too high you will end up with a less fermentable wort.

### WORT BOIL:

A pH of around 5.0-5.2 will help extract the best flavour from your hops. A lower pH here will give you a paler wort, and a higher pH may extract some unpleasant flavours.

### FERMENTATION:

Your finished beer should have a pH of around 3.7-4.4 depending on the style of beer (sour beers may have a significantly lower pH). Drier beers tend to have a lower pH, and if the pH is too high the beer can be more prone to infection by micro-organisms.

### CLEANING:

Check the pH after rinsing to ensure you have flushed out any caustic or acid cleaning solutions.

## REPLACEMENT PROBES FOR pH METER KIT

Replacement pH probes are available for the kit and the probes should be changed regularly to ensure accurate readings. Delicate pH electrodes have a limited life span since the solution in the glass reservoir bulb electrode is gradually used up and the membrane on the surface of the electrode can become clogged. If looked after properly they can last for around a year of normal use (around 365 measurements), though if they are left dirty or to dry out this lifespan will be significantly reduced. Always clean and store carefully to keep them in good working order.

Product Code	Type	Price
B0620/PH	pH probe	£48.00

## PROTECTIVE CASE WITH STAND AND MAGNET

Rubber case with stand and magnet so that you can place the pH meter on a flat surface or attach it to a steel surface.

PRODUCT CODE: B0375/SB

PRICE: £14.00







## PAL PLUS TESTER

Resolution: 0.1pH Accuracy:  $\pm 0.2\text{pH}$  Accuracy: ★★★★★

This is a robust pen-type pH tester with a clear, easy to read display. With a pH meter of this accuracy temperature compensation is not needed, and it can be calibrated at the touch of a button in pH 7.0 buffer solution. Always rinse the electrode and replace the cap immediately after use to maintain the life of the meter.

PRODUCT CODE: B0605

PRICE: £66.00



## BUFFER SOLUTIONS

Use these for calibrating your pH meter before each use. The Pal Plus tester just needs a 7.00pH solution. The 8100 Plus pH meter needs a second solution as well – for the best accuracy use 4.01 pH if you are measuring acidic liquids, or 10.01 pH if you are measuring alkaline liquids.

Product Code	Size	pH	Price
B0600/S04	90ml	4.01	£10.00
B0600/S07	90ml	7.00	£10.00
B0600/S10	90ml	10.01	£10.00



## BUFFER CAPSULES

These capsules can be added to 100ml of distilled water to make up solutions suitable for calibrating pH meters.

Product Code	Size	pH	Price
B0600/C4	Pack of 10	4.0	£21.00
B0600/C7	Pack of 10	7.0	£21.00
B0600/C10	Pack of 10	10.0	£21.00

## CLEANING AND STORAGE SOLUTIONS

Use these solutions to keep your pH electrodes in good condition to ensure a long life and accurate readings.

Product Code	Size	Type	Price
B0600/CL	500ml	Cleaning Solution	£33.50
B0600/ST	500ml	Storage Solution	£33.50



## HOW TO USE YOUR pH METER

Rinse off any storage solution before using your pH meter and rinse the electrode again after each test.

Calibrate using a pH 7.0 buffer solution. More accurate pH meters will need a second calibration solution, so use one close to the pH you will be measuring. A pH 4.0 solution will be best for most brewery tests.

To ensure accurate readings, you will have to calibrate your pH meter on a regular basis. It should be calibrated after taking out of storage, and if you are taking many measurements it may be worth recalibrating after every few tests.

## CARING FOR YOUR pH ELECTRODE

If you don't look after your pH meter carefully, then you will not get correct readings, or it will fail to calibrate.

After every use you should clean the pH electrode by rinsing it under a running tap, or if it is dirty by soaking in a cleaning solution for at least half an hour. If it is very dirty, then leave it in the solution overnight.

After cleaning it should be soaked in pH4 buffer solution or storage solution, and never allowed to dry out.

# REFRACTOMETERS



## REFRACTOMETERS FOR SUGAR SOLUTIONS

The refractive index of a sugar solution changes with its concentration, so refractometers can provide a quick measurement of this using just a drop of liquid as a sample. This means you can make multiple checks during the production of your wort without having to draw off and cool a sample large enough for a hydrometer.

### OPTICAL REFRACTOMETERS

The Eclipse refractometers are manufactured by Bellingham + Stanley in the UK to the highest specification using only the best materials and optical components. All instruments are supplied with a soft carrying case and instructions for use. These reliable and robust refractometers are sealed against the ingress of water with IP65 construction, so they can be used in the harshest of environments. The large body housing and rubber handgrip make the instrument easy to handle.

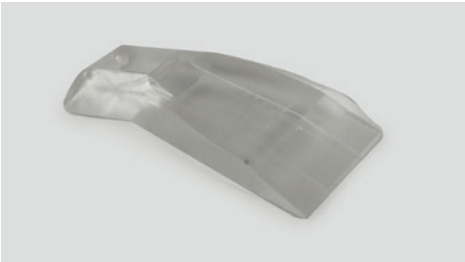
Special features make measurements easy and reliable: Simple zero adjust with lock - Shaded view with bright display for maximum distinction - High precision, clear scale - Easy-clean prism - Unique sample 'dribble feed' feature - Anti-roll supports

Product Code	Range	Price
BS4501	0 to 15% Brix in 0.1%	£250.00
BS4502	0 to 30% Brix in 0.2%	£250.00
BS4503	0 to 50% Brix in 0.5%	£250.00
BS4508	28 to 65% Brix in 0.2%	£250.00
BS4522	10 to 135 Zeiss in 1	£270.00

### SPARE ILLUMINATOR FLAP FOR ECLIPSE REFRACTOMETER

The eclipse refractometers have a push-on prism flap which can be easily replaced if broken.

**PRODUCT CODE: BS45003     PRICE:    £12.00**



### WHEN TO USE A REFRACTOMETER INSTEAD OF A HYDROMETER

Refractometers and hydrometers are very different instruments and will only read the same in a very specific set of circumstances. This is because the only thing a hydrometer can measure is density (or specific gravity), and the only thing a refractometer can measure is refractive index. The Brix or sucrose equivalent SG scales are based on the refractive index of a pure solution of sucrose in water. In such a solution tested at 20°C, the readings should correspond exactly to the readings of a hydrometer.

When used in a solution that is not just sucrose and water, such as wort or beer, the refractometer SG reading will be different from the hydrometer reading. Wort is fairly similar to a sucrose solution, so the readings will be fairly similar to those of a hydrometer and a simple wort correction factor can be used if you want the most accurate refractometer SG determination. You can determine your wort correction factor for each recipe by cooling a typical wort sample to 20°C and comparing the hydrometer and refractometer readings.

Once fermentation has started introducing alcohol into the mix, the refractometer SG readings will be radically different from those of a hydrometer.



## DIGITAL REFRACTOMETERS

The OPTi digital handheld refractometer is manufactured in the UK and is a premium quality instrument suitable for use in the harshest of environments. Displays up to three active scales from an onboard library of 50 scales. Automatic Temperature Compensation (ATC) is available for the sugar scales used in brewing. By default the refractometer is set to read the Brix scale, and we can supply the refractometer with any of the other scales pre-loaded on request. A selection of the relevant scales for brewing are shown below.

**PRODUCT CODE: BS3801      PRICE:    £290.00**

Brewing Scales	Range	Accuracy
°Brix (sucrose)	0-95	±0.2°
°Plato (dissolved solids)	0-30	±0.2°
°Zeiss (ABV determination)	10-135	±0.5%
SG (sucrose equivalent)	1.000-1.120	±0.001

## ABV TESTING KIT WITH ZEISS REFRACTOMETER

The complete kit consists of an optical or digital refractometer measuring the Zeiss scale, a hydrometer with a gravity range of 980 to 1050 in 1° gravity divisions, a glass 100ml measuring cylinder and pipettes for the refractometer samples. The kit is supplied in a sturdy plastic case, and all individual parts are available separately.

Product Code	Refractometer	Price
B0151/O	Optical	£355.00
B0151/D	Digital	£375.00

## PARTS FOR ABV KIT

Product Code	Range	Price
B0151/C	Carrying Case for B0151 Kit	£30.00
B0151/CH	Chart and Instructions	£5.00
B0151/H	Saccharometer for B0151 Kit	£38.00
B1524/O100	100ml Cylinder for B0151 Kit	£14.10
B0151/P	Plastic Pipette (10 pieces)	£1.00
BS4522	Optical Zeiss Refractometer	£270.00
BS3801	Digital Zeiss Refractometer	£290.00



### USING A REFRACTOMETER AND HYDROMETER TO ESTIMATE ALCOHOL CONTENT

It is not possible for either a refractometer or a hydrometer to directly measure the alcohol content of a finished beer or wine, however using readings from both instruments can give you a good estimate. Because sugar and alcohol have different effects on the density and refractive index of a solution, measuring both will let you estimate the proportion of alcohol in the solution.

The refractometer Zeiss scale can be used along with a final gravity reading to determine ABV using the calculator on the Bellingham and Stanley website, or the simple table supplied with our kit, so for example beer with a final SG of 1.008 on a hydrometer and a Zeiss reading of 38 on a refractometer would have 5.6% ABV. An accuracy of 0.5% is usually claimed for this method, although with an accurate hydrometer and a refractometer as good as the OPTi Digital, it is likely to be a slightly more accurate than that.





# VOLUMETRIC



## GLASS MEASURING CYLINDERS

Use these for basic measurements of liquids or as hydrometer jars. They are Class B graduated measuring cylinders made to BS EN ISO 4788:2005 and are accurate to within one graduation. They have permanent printed graduations and are made of soda glass, except the 2000ml which is made of borosilicate glass.

Product Code	Capacity	Graduations	Price
B1524/0025	25 ml	0.5 ml	£11.90
B1524/0050	50 ml	1.0 ml	£12.20
B1524/0100	100 ml	1.0 ml	£14.10
B1524/0250	250 ml	2.0 ml	£21.60
B1524/0500	500 ml	5.0 ml	£33.80
B1524/1000	1000 ml	10 ml	£56.20
B1524/2000	2000 ml	20 ml	£100.10

## PLASTIC MEASURING CYLINDERS

Use these for basic measurements of liquids or as hydrometer jars. They are Class B graduated measuring cylinders made to ISO 6706:1981 and are accurate to within one graduation. They have moulded graduations and are made from PMP(TPX) which is transparent, strong, and lightweight. May be used up 170°C.

Product Code	Capacity	Graduations	Price
B1524/T/0100	100 ml	1.0 ml	£13.00
B1524/T/0250	250 ml	2.0 ml	£21.70
B1524/T/0500	500 ml	5.0 ml	£34.10
B1524/T/1000	1000 ml	10.0 ml	£47.50
B1524/T/2000	2000 ml	20.0 ml	£80.80

## BAR DISPENSE MEASURES

Use these to test optics and other dispense equipment in bars for accuracy. Our range of spirit measures covers singles and doubles for both the 25ml and 35ml measures. Also available are 125ml and 175ml measures for wine, and 1/2 pint and pint measures for beer. All measures are individually numbered and can be supplied with a certificate of calibration from Trading Standards.

Product	Capacity	Price
B1584/025	25 ml	£55.40
B1584/035	35 ml	£56.10
B1584/125	125 ml	£86.30
B1584/175	175 ml	£92.30
B1584/284	1/2 Pint	£95.90
B1584/568	1 Pint	£99.00





## AVERAGE SYSTEM MEASURES

Use these for testing bottle fills according to the Weights & Measures (Packaged Goods) Regulations 2006, schedule 3. The measures are available for a variety of bottle sizes, and you will need the specific measure for the bottle size you are filling. The regulations allow on average no more than a specified underfill for each bottle size – this is marked as “T” on the measure. No bottle is allowed with an underfill of more than twice that value – this is marked as “2T” on the measure.

All measures are individually numbered and can be supplied with a certificate of calibration from Trading Standards. We can also produce these in sizes not listed, please let us know what you need and we will provide a quotation.

Product Code	Test Volume	Underfill		Price
		T	2T	
B1579/0050	50 ml	4.5 ml	9.0 ml	£55.50
B1579/0100	100 ml	4.5 ml	9.0 ml	£55.60
B1579/0125	125 ml	5.6 ml	11.2 ml	£55.60
B1579/0200	200 ml	9.0 ml	18.0 ml	£58.00
B1579/0250	250 ml	9.0 ml	18.0 ml	£58.00
B1579/0275	275 ml	9.0 ml	18.0 ml	£60.80
B1579/0284	284 ml	9.0 ml	18.0 ml	£60.80
B1579/0300	300 ml	9.0 ml	18.0 ml	£60.90
B1579/0330	330 ml	9.9 ml	18.0 ml	£61.60
B1579/0350	350 ml	10.5 ml	21.0 ml	£61.60
B1579/0375	375 ml	11.3 ml	22.6 ml	£65.80
B1579/0500	500 ml	15.0 ml	30.0 ml	£74.40
B1579/0550	550 ml	15.0 ml	30.0 ml	£74.80
B1579/0568	568 ml	15.0 ml	30.0 ml	£74.80
B1579/0700	700 ml	15.0 ml	30.0 ml	£78.10
B1579/0750	750 ml	15.0 ml	30.0 ml	£82.30
B1579/1000	1000 ml	15.0 ml	30.0 ml	£135.00
B1579/1500	1500 ml	22.5 ml	45.0 ml	£191.00
B1579/1750	1750 ml	26.3 ml	52.6 ml	£199.00
B1579/2000	2000 ml	30.0 ml	60.0 ml	£237.00

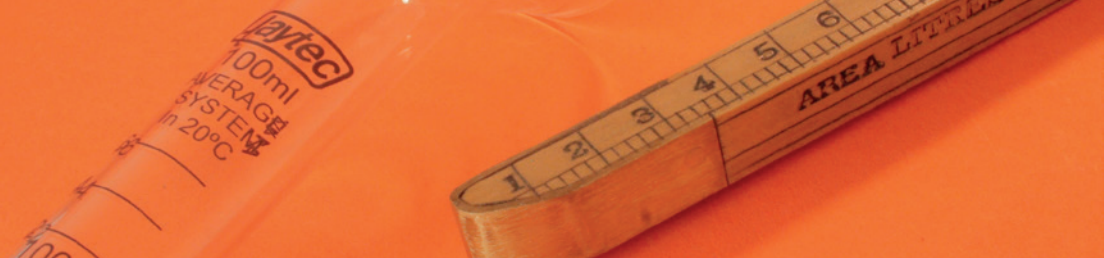
## TRADING STANDARDS CERTIFICATES FOR TEST MEASURES

We can supply average system measures or bar dispense measures with calibration certificates from Trading Standards if required.

**PRODUCT CODE: B1579/CERT**

**PRICE: £85.00**

# VOLUMETRIC



## DIP TAPES FOR TANKS

Wet Dip Tapes are for deep fermenting vessels etc. where rigid dip rods are impracticable. Graduated in cm and mm.

### MILD STEEL DIP TAPES

Mild steel tapes come with a brass weight. Complete tapes include weight and winding handle. Longer tapes, weights and winding frames available on request.

Product Code	Length	Price
B1185/10	10m	£158

### STAINLESS STEEL DIP TAPES

Stainless steel tapes come with a stainless weight. Complete tapes include weight and winding handle. Longer tapes, weights and winding frames available on request.

Product Code	Length	Price
B1186/10	10m	£186
B1186/15	15m	£209

### SPARE TAPES

Product	Length	Price
B1185/T/10	10m	£60

### SPARE TAPES

Product Code	Length	Price
B1186/T/10	10m	£65
B1186/T/15	15m	£85

We can also supply spare weights and winding frames.

### CALIBRATING TANKS FOR DIP RODS AND TAPES

When first using a dip rod or tape with each tank, you should draw up a calibration table for the tank. Fill the tank with measured quantities of liquid and note what readings on the dip rod correspond to each volume. Using this method means that the rods or tapes can be used to measure the volume of liquid in tanks and vats of any shape or size. For the best accuracy and consistency, you should always use the same dip rod or tape. Our rods for Spirit Receivers and Wash Chargers are designed so that they cannot be removed from the tank and have a brass ring at the top of the rod so they can be held out of the tank when not in use.





## MINI VACUITY ROD FOR WHISKY BARRELS

Use this to measure the evaporation from whisky barrels. It is graduated for 3 to 9 years in American barrels, Hogsheads, and Butts. It also measures dry dip up to 30cm to measure the distance from the bung hole to the liquid level.

**PRODUCT CODE: B1187**

**CURRENTLY UNAVAILABLE**



## BUNG ROD FOR WHISKY BARRELS

Use this to measure the liquid quantity in whisky barrels. It is graduated in diagonal line litres, area litres, and wet dip up to 120cm.

**PRODUCT CODE: B1188**

**CURRENTLY UNAVAILABLE**

For the most accurate readings the bung rod should be used with this brass guide, to ensure that the dip is vertical each time it is used.

**PRODUCT CODE: B1188/G**

**£165.00**

# CARBONATION TESTERS

## CARBONATION TESTERS

The carbonation of a drink can be determined by measuring the pressure in its container at a known temperature. The pressure inside a container (can or bottle) is dependent upon the level of dissolved CO<sub>2</sub> and the temperature.

Most of our testers consist of a piercing needle and rubber seal connected to a pressure gauge. The needle is used to pierce the bottle cap or can base.

Headspace air will introduce an error to this method of testing carbonation, so most testers have a snift valve. The pressure is initially released (snifted) to flush air out of the headspace.

The bottle or can is then shaken vigorously to maximize the pressure and the maximum achieved pressure is recorded. The temperature of the drink is measured, and the volumes of carbon dioxide dissolved in the drink can be calculated using our slide rule or a suitable set of tables.



### SCREW TOP TESTER

This is our simplest carbonation tester for plastic bottles. Just screw off the cap, screw on the tester and shake to get a pressure reading from the dissolved carbon dioxide. Available with pressure gauges in the 0-60psi or 0-100psi ranges.

**PRICE: £140.00**

Product Code	Gauge	Vols CO <sub>2</sub>
B1137/1	0-60psi	Up to 3.5
B1137/2	0-100 psi	Up to 5.0

### SPARE PARTS



White sealing washer for bottle top seal

**PRODUCT CODE: B1137/SW**  
**PRICE: £5.00**



Top O-ring for pressure gauge seal

**PRODUCT CODE: B1137/TR**  
**PRICE: £5.00**



Red sealing washer for bottle top seal  
with metal insert

**PRODUCT CODE: B1133/SW**  
**PRICE: £10.00**



Snift valve with O-ring seal

**PRODUCT CODE: B1133/SV**  
**PRICE: £45.00**

Pressure gauges and gauge locknuts are on page 39.



### CROWN CORK TESTER

This is a bottle top carbonation tester suitable for glass bottles with crown corks or plastic screw top bottles. Once the bottle is secured, the piercer screws down through the cap and the pressure of dissolved carbon dioxide can be measured once the headspace air has been snifted. Available with a range of pressure gauges suitable for various levels of carbonation.

**PRICE: £350.00**

Product Code	Gauge	Vols CO <sub>2</sub>
B1133/0	0-30psi	Up to 2.0
B1133/1	0-60psi	Up to 3.5
B1133/2	0-100psi	Up to 5.0

Tester only without gauge

**PRODUCT CODE: B1133** **PRICE: £280.00**

### SPARE PARTS





## UNIVERSAL CARBONATION TESTERS



### STAINLESS-STEEL CARBONATION TESTER

The Reeves stainless-steel universal carbonation tester is suitable for cans and bottles of sizes up to 2 litres. It has an all stainless-steel piercer block, making it stronger and more durable than any other tester. The spring-loaded piercing lever pierces cans and bottle tops effortlessly, locking into place when down. A release button lets you raise the lever and remove the bottle. The screw action snift valve allows for easy cleaning of sugar residues and the overflow tube directs messy overflow away from the tester. Available as a complete kit, it includes a pressure gauge, digital thermometer and slide rule for calculating volumes of carbon dioxide dissolved. Available with a range of pressure gauges suitable for various levels of carbonation.

**PRICE: £1600.00**

Product Code	Gauge	Vols CO <sub>2</sub>
B2030/1/60	0-60 psi	Up to 3.5
B2030/2/100	0-100 psi	Up to 5.0

Tester only without gauge

**PRODUCT CODE: B2030    PRICE: £1500.00**



### CROSSBAR CARBONATION TESTER

The Reeves Crossbar universal carbonation tester is suitable for cans and bottles of most sizes. The screw action snift valve allows for easy cleaning of sugar residues and the overflow tube directs messy overflow away from the tester. Available as a complete kit, it includes a pressure gauge, digital thermometer and slide rule for calculating volumes of carbon dioxide dissolved. Available with a range of pressure gauges suitable for various levels of carbonation.

**PRICE: £925.00**

Product Code	Gauge	Vols CO <sub>2</sub>
B2033/1/60	0-60 psi	Up to 3.5
B2033/2/100	0-100 psi	Up to 5.0

Tester only without gauge

**PRODUCT CODE: B2033    PRICE: £850.00**

### SPARE PARTS FOR UNIVERSAL CARBONATION TESTERS



Hardened steel piercer for Stainless-Steel and Crossbar Carbonation Testers.

**PRODUCT CODE: B2033/117  
PRICE: £20.00**



Piercer bush and washer for Stainless-Steel and Crossbar Carbonation Testers.

**PRODUCT CODE: B2033/116  
PRICE: £20.00**



Black Rubber sealing bobbin for Stainless-Steel and Crossbar Carbonation Testers.

**PRODUCT CODE: B2033/128  
PRICE: £10.00**

Pressure gauges and gauge locknuts are on page 39.

# CARBONATION TESTERS

## ACCESSORIES FOR ALL TESTERS

The pressure gauge locknut and O-ring provide a seal between the gauge and the tester, allowing the gauge to be positioned for easy visibility.

Gauge Locknut

**PRODUCT CODE: B2033/130** **PRICE: £10.00**

Gauge Locknut O-ring (pack of 5)

**PRODUCT CODE: B2033/131** **PRICE: £7.00**

The rinsing device attaches to the testers in place of the pressure gauge and allows the tester to be flushed out with clean water.

**PRODUCT CODE: B2030/RD** **PRICE: £35.00**

The carbonation slide rule gives an indication of the volumes of carbon dioxide dissolved in the drink for each measurement of pressure and temperature.

**PRODUCT CODE: B2050** **PRICE: £9.00**

The digital thermometer has a slim probe which can be inserted into the bottle or can through the pierced hole to take a temperature measurement once the carbonation pressure has been measured.

**PRODUCT CODE: B0360/WP** **PRICE: £19.50**

## PRESSURE GAUGES

Designed for use with our carbonation testers, these pressure gauges have an all stainless-steel construction, and a 3/16" connection. They are available in three ranges, suitable for varying levels of carbonation.

**PRICE: £65.00**

Product Code	Range	Vols CO <sub>2</sub>
B1138/1/30	0-30psi	up to 2.0
B1138/2/60	0-60psi	up to 3.5
B1138/3/100	0-100psi	up to 5.0

## PRESSURE GAUGE CERTIFICATION

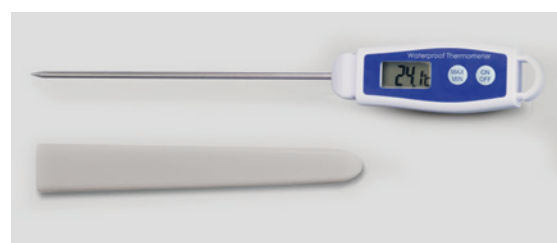
New gauges can be supplied with a works certificate confirming their accuracy.

**PRODUCT CODE: B1138/CC** **PRICE: £25.00**

## PRESSURE GAUGE REPAIR

Overpressure or knocks can easily damage a gauge so that it no longer gives an accurate reading. In many cases this can be repaired. Repaired gauges can also be supplied with a works certificate if required.

**PRODUCT CODE: B1138/XX** **PRICE: £35.00**





## COMPLETE AIR TESTING KIT

Use this to measure the volume of headspace air in bottles or cans. It is an alternative to the snift method to determine the error in carbonation testing due to the headspace and dissolved air. One of our universal carbonation testers is used to pierce the can or bottle top. A caustic solution can then be used to dissolve the carbon dioxide, and the remaining headspace air measured using an air burette. The kit can be attached to the top of our universal carbonation testers, either the Crossbar or the Stainless-Steel models.

**PRODUCT CODE: B2033A**

**PRICE: £510.00**

## AIR TESTING ACCESSORIES

Individual air testing kit parts are available separately. In order to convert a carbonation tester for air testing, you need one Burette, one Burette Pillar, one Burette Clamp one Burette Safety Trap, one Plastic Reservoir Bottle with Base, and around 1m of reservoir tubing to connect everything.

Product Code	Description	Price
B2033/114	Burette Clamp	£25.00
B2033/115	Burette Pillar	£25.00
B2033/134	Plastic Reservoir Bottle with base	£95.00
B2033/139	Reservoir Tubing (per metre)	£3.00
B2033/142	Burette Safety Trap	£45.00
B2033/B	25ml Air Burette, Glass Stopcock	£336.00
B2033/BT	25ml Air Burette, Teflon Stopcock	£336.00



B2033/134



B2033/142



# LAB EQUIPMENT

## THORPE STILL FOR ABV ANALYSIS

This still is designed to the specification of Dr. Thorpe's pattern for use in ABV analysis by distillation. Includes boiling flask, condenser, connecting tube, stoppers, stand and clamps.

**PRODUCT CODE: B1453**

**PRICE: £462.00**

## SPARE PARTS

Individual parts of the still are available separately. The complete still includes one Condenser, one Boiling Flask, One Reflux Tube, one Retort Base, one Retort Rod, two rubber bungs, two boss heads and two clamps.

Product Code	Description	Price
B1453/C	Thorpe pattern condenser	£227.00
B1453/F	Thorpe pattern boiling flask, 750ml	£126.00
B1453/AT	Reflux tube for Thorpe Still	£28.40
B1453/RB	Rubber Bungs, 19mm, one hole	£1.00
B1453/B	Retort Stand Base	£36.80
B1453/R	Retort Rod, 600mm x 12.5mm	£18.90
B1453/BH	Straight Boss Head	£10.00
B1453/PC	Prong Clamps	£18.90

## VOLUMETRIC FLASKS

For analysis of the distillate using a density bottle you should use a 100ml sample. For analysis of the distillate using a hydrometer you will need a 250ml sample. These flasks are manufactured to Class A standards in accordance with BS EN ISO 1042:2000 out of borosilicate glass with polypropylene stopper. Accuracy 0.05% of volume

Product Code	Capacity	Price
B1453/VF	100ml	£20.00
B1453/VF250	250ml	£28.40

## DENSITY BOTTLES

These density bottles are all specially adjusted and numbered according to BS733 and are available in 50ml and 100ml sizes. Accuracy of adjusted bottles is 0.001 ml

Product Code	Capacity	Price
B1454/C	50ml	£45.20
B1454/100	100 ml	£63.00



## HYDROMETERS

For analysis using a hydrometer, the alcoholometer range AC3030 (on page 13) are suitable for floating in a 250ml sample and will give 0.2% accuracy. This lets you make sure your production is consistent and in line with external lab testing.





## MASH FLASKS

B1507 is a glass volumetric flask to BS701 graduated at 500ml and 515ml for laboratory mashing.

**PRODUCT CODE: B1507**

**PRICE: £53.60**

## FILTER PAPERS

Whatman filter papers are available in either circles or pre-pleated. Common sizes are listed below, please ask if you need a different size or quality.

Product Code	Type	Price
BFB105-42	31cm Grade 1 circles (box of 100)	£84.00
BFB115-40	27cm 2V Pre-pleated Qualitative (100)	£144.00
BFB115-42	27cm 2V Pre-pleated Qualitative (100)	£157.00



## IMHOFF CONES

The B1510 Imhoff Code will measure the volume of sedimentation solids in 1000ml of sample. Stopped to allow for removal of sample and easy cleaning.

**PRODUCT CODE: B1510**

**PRICE: £57.00**

Acrylic stand for mounting Imhoff cones. Rectangular and holds 2 cones in line, with locating recess on the base plate.

**PRODUCT CODE: B1511**

**PRICE: £116.00**

## GENERAL LAB EQUIPMENT

Please ask if you have any other requirements for laboratory equipment, as we can supply a wide range of general equipment.

# SAMPLING EQUIPMENT



## SAMPLING CANS

This is a 1 litre weighted stainless-steel sampling can with a cork bung, suitable for spirit tanks.

**PRODUCT CODE: B0755/1**

**PRICE: £350.00**

2mm long link stainless-steel chain suitable for sample cans. Supplied with cotter rings for attachment to bung and can handle.

**PRODUCT CODE: B0758**

**PRICE PER METRE: £3.50**



## STAINLESS STEEL BUCKETS

These stainless-steel buckets have graduations every litre.

Product Code	Capacity	Price
B1001/G	12 litre	£115.00
B1004/G	15 litre	£120.00

Lids are also available for buckets of both sizes.

Product Code	For Bucket size	Price
B1001/LID	12 litre	£33.00
B1004/LID	15 litre	£35.00



## VALINCHERS

Also known as whisky thieves, use these for taking samples from whisky barrels. Traditional copper valincher are available in two sizes. The 600mm long copper valincher is for barrels with 2" bungs, and will take samples of up to 400ml. The short copper valincher is for small barrels and will fit through a 1" bung hole. The plastic valincher are made from LDPE.

Product Code	Description	Sample	Price
B1045/17	Copper Valincher 430mm	125ml	£139.00
B1045/25	Copper Valincher 600mm	400ml	£195.00
B1049/850	Plastic Valincher 850mm	275ml	£52.00
B1049	Plastic Valincher 650mm	175ml	£39.00



## PLASTIC TUBS

White polypropylene tubs with lids suitable for holding and solid or liquid samples, for example malt, grain, grist or mash.

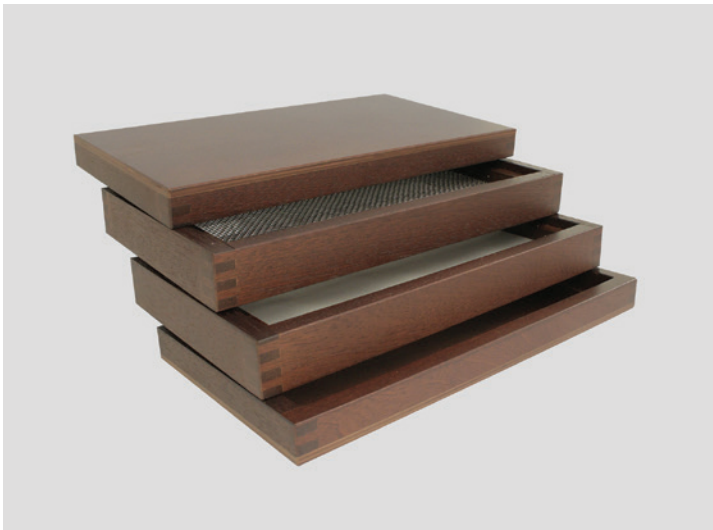
Product Code	Size	Price
C02	500ml (pack of 10)	£17.00
C03	1.0 litre (pack of 10)	£22.00
C05	5.0 Litre (pack of 10)	£46.00



## PLASTIC BOTTLES

These bottles are ideal for taking water and wastewater samples for analysis.

Product Code	Capacity	Bottle Type	Per pack	Price
C17/P	500ml	Round HDPE	36	£51.00



## GRIST SEPARATOR

A small wooden sieve box (215mm x 152mm x 101mm) used for a quick test of grist consistency. It has two sieve sizes of 1.98mm and 0.212mm aperture to separate the grist into husks, nodules and flour.

**PRODUCT CODE: B0886**

**PRICE: £240.00**

# SAMPLING EQUIPMENT



## GLASS SAMPLE BOTTLES

These are clear glass samples bottles with a black urea cap with polycone liner to ensure a tight seal even after repeated opening. The flat shape of the larger bottles allows an easy comparison of sample colour. Supplied capped and boxed in the quantities shown below.

Product Code	Capacity	Per pack	Price
C10	100ml	90	£98.00
C19	200ml	56	£78.00
C09	300ml	36	£61.00
C16	500ml	36	£86.00

For smaller samples, a round clear bottle is available. Supplied in shrink wrapped trays with caps separately.

Product Code	Capacity	Per pack	Price
C07	60ml	162	£105.00

## POSTAL PACKS FOR SAMPLE BOTTLES

These sturdy postal packs for sample bottles provide excellent protection when shipping samples, and are made from fully recyclable cardboard and paper. Available sized for 100ml, 200ml and 500ml bottles in quantities to match our standard bottle packs. For other bottle sizes, we can provide expanded polystyrene protection, cut to order.

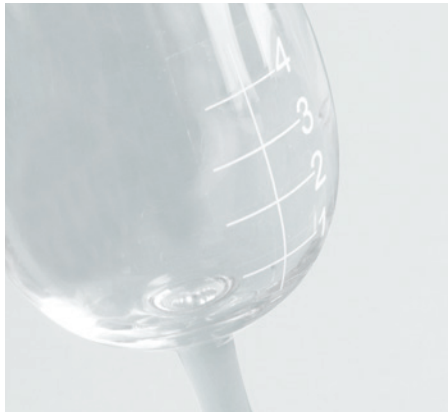
Product Code	Capacity	Per pack	Price
C88/100	100ml	90	£123.00
C88/200	200ml	56	£97.00
C88/500	300ml	36	£75.00

## CAPS FOR SAMPLE BOTTLES

Polycone lined caps provide a durable seal over repeated use. Spare caps are available in two sizes. The 100ml sloping shoulder flat bottles require a 24/R3 cap size. All other sample bottles take the 28/R3 cap size.

Product Code	Cap size	Per pack	Price
C10C	24/R3	100	£17.00
C19C	28R/3	100	£22.00





## WHISKY NOSING GLASSES

This is the traditional “tulip” shaped whisky nosing glass with a narrow opening to concentrate the scent. Available with four equal graduations for blending samples, or in a blue glazed version to hide the colour of the sample.

Capacity 140 ml (approx. 5 oz).

Priced per box of 6 glasses.

Product Code		Price
B0721	Plain Clear Glass	£30.00
B0721/4G	With 4 graduations	£58.00
B0721/B	Blue glazed glass	£48.00

## WINE NOSING GLASSES

This is a standard 210ml clear wine tasting glass. Available with four equal graduations for blending samples. Priced per box of 6 glasses.

Product Code		Price
B0717	Plain Clear Glass	£29.00
B0717/4G	With 4 graduations	£111.60



## SHERRY NOSING GLASSES

This is a standard 120 ml (approx. 4 oz) clear sherry tasting glass. Available with four equal graduations for blending samples. Priced per box of 6 glasses.

Product Code		Price
B0714	Plain Clear Glass	£28.00
B0714/SG4	With 4 graduations	£110.90

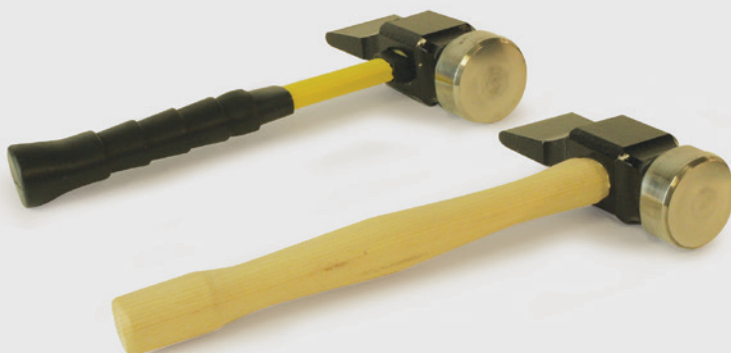
## NOSING GLASS COVERS

A 50mm diameter nosing glass cover, suitable for all our nosing glasses.

**PRODUCT CODE: B0723/WG**

**PRICE: £1.60**

# COOPERAGE EQUIPMENT



## COOPER'S HAMMER

This is a 4.5 lb (2 kg) hammer with hickory shaft.

**PRODUCT CODE: C46**  
**PRICE: £121.00**

Also available with an anti-vibration fibreglass shaft.

**PRODUCT CODE: C46/F**  
**PRICE: £121.00**



## HOOP DRIVER

Complete hoop driver with shaped head, wooden shaft and a reinforcing ring.

**PRODUCT CODE: C40**  
**PRICE: £95.00**



## BUNG FLOGGER

Used for loosening bungs in wooden barrels by striking the staves around the bung hole. This is 800mm long with an ash head.

**PRODUCT CODE: C24**   **PRICE: £72.00**



## BUNG EXTRACTORS

Used to extract wooden bungs. The point should be screwed into the bung so that it can be removed using a slide hammer action.

**PRODUCT CODE: C21**  
**PRICE: £240.00**

Also available with a rubber guard for hand protection.

**PRODUCT CODE: C23**  
**PRICE: POA**

Replacement extractor points have a hardened tip for durability. Saw off the used point and fix the new one using the included collar and rivets.

**PRODUCT CODE: C22**  
**PRICE: £62.00**



## BARREL STENCILS

We can supply barrel end stencils or year stencils to order. Please let us know what lettering or design you need, and we can provide a quote.

**PRODUCT CODE: C90**

**PRICE: ON ENQUIRY**

Product Code	Description	Price
C76Q	Black Stencil Ink, 1 quart (0.946 litres)	£45.00
C76P	3" Stencil Ink Pad	£23.00
C76R	3" Type-N roller assembly	£37.00
C76S	3" Type-N replacement roller	£23.00
C74	1" Stencil Brush	£9.00



## BUNG HOLE BORER

The bung hole borer, also known as a skillop, is suitable for standard oak bungs.

Spare Blades are available for the bung hole borer

**PRODUCT CODE: C25    PRICE: £530.00**

**PRODUCT CODE: C25B    PRICE: £53.00**

## BUNG CLOTHS

6" square hessian bung cloths. Supplied in a 12.5kg sack.

**PRODUCT CODE: C18    PRICE : £140.00**

## DUMP MATS

These are made from high density foam and rubber coated top and bottom.

Please give dimensions required for pricing.

A typical size for whisky barrels is 1676mm x 1067mm x 610mm.

**PRODUCT CODE: C39**

**PRICE: PRICE ON ENQUIRY**

## CHALK BLOCKS

Used for marking barrel ends, these chalk blocks measure 5cm x 5cm x 10cm. Supplied in packs of 16.

**PRODUCT CODE: C90    PRICE: £32.00**



## COOPER'S APRONS

Made from 3mm thick chrome leather, the aprons are 35" x 23" with webbing straps.

**PRODUCT CODE: C15  
PRICE: £110.00**

# COOPERAGE EQUIPMENT

## HAND TOOLS FOR BARREL MAKING AND REPAIRS

We produce a selection of hand tools for barrel making and repairs.



COOPER'S ADZE

PRODUCT CODE: C11    PRICE: £115



CAULKING IRON

PRODUCT CODE: C27    PRICE: £57



CRUM KNIFE

PRODUCT CODE: C38    PRICE: £94



HEADING KNIFE

PRODUCT CODE: C48    PRICE: £94



WING COMPASSES

PRODUCT CODE: C28    PRICE: £44



FLAGGING IRON

PRODUCT CODE: C45    PRICE: £64



PUNCH

PRODUCT CODE: C65    PRICE: £35



VICE

PRODUCT CODE: C83    PRICE: £40



COLD CHISEL

PRODUCT CODE: C29    PRICE: £12





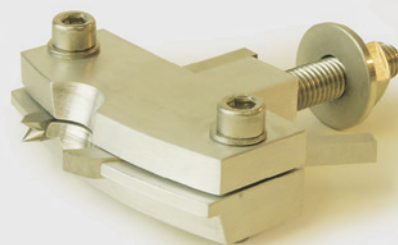
## COOPER'S CROZE

A wooden cooper's croze board is available without box or teeth.

**PRODUCT CODE: C30      PRICE: £260.00**

The croze should be completed with one of the box and teeth sets, available in two sizes.

PRODUCT CODE	SIZE	PRICE
C31	3/16"	£265.00
C33	1/4"	£265.00



## PLUCKER

A wooden cooper's plucker supplied with one blade.

**PRODUCT CODE: C66      PRICE: £210.00**

Spare blades for plucker.

**PRODUCT CODE: C69      PRICE: £18.00**



## PAYMENT

Unless a credit account has been set up, all purchases must be paid for by credit card or on a Proforma invoice basis. We can accept VISA and Mastercard payments over the phone, or by the online payment links sent along with our emailed quotations.

Bank transfer payments should be made to the following account:

Bank of Scotland, 300 Lawnmarket, Edinburgh

Account Name: Stevenson Reeves Ltd

Sort Code: 800224

Account Number: 00877360

IBAN: GB75 BOFS 8002 2400 8773 60

SWIFT: BOFSGB21216

## CREDIT ACCOUNTS

Payment of credit accounts should be made before the end of the month following that on the invoice.

A request for a credit account must be accompanied by the address of the customer's bank, two trade references, and the name and email address of the person responsible for making payments. Credit accounts will be only given to regular customers and will not be granted for occasional purchases.

## COMPANY DETAILS

Registered Office: 40 Oxfangs Bank, Edinburgh, EH13 9LH

Company registration number: SC011787

VAT registration number: GB 269 7321 27

EORI Number: GB269732127000

© Copyright Stevenson Reeves Ltd 2025. Design and photography by Smash Digital

## TERMS AND CONDITIONS OF SALE

**1. ACCEPTANCE.** Acceptance of any order by the purchaser for the supply of goods will be subject to these conditions of sale.

**2. PRICES.** Prices quoted are normally ex-works exclusive of VAT and carriage. Whilst we shall endeavour to maintain the prices shown, we reserve the right to charge the price ruling at date of despatch. In the event of a price alteration after an order has been placed & prior to despatch notification of such alteration will be made before despatch of goods.

**3. SPECIFICATIONS.** Due to continual improvements in the design & manufacturing methods strict accuracy of specifications & illustrations cannot be guaranteed. So that any product improvements can reach the purchaser as soon as possible the Company reserves the right to change design of specification without formal notice.

**4. GUARANTEE.** Where the goods have been supplied by the seller & are found to be defective, the seller shall repair, or at their discretion, replace defective goods free of charge within one year (unless otherwise stated) from the date of delivery, subject to the following conditions:

- a.** The buyer notifying the seller in writing immediately upon the defect becoming apparent.
- b.** The defect being due to faulty design, materials or workmanship of the seller.
- c.** Any goods to be repaired or replaced shall be returned to the seller at the buyer's expense, if so requested by the seller.
- d.** Where the goods have been manufactured & supplied to the seller by a third-party, any guarantee granted to the seller in respect of the goods shall be passed on to the buyer.
- e.** The seller shall be entitled at their absolute discretion to refund the price of the defective goods in the event that such price has already been paid.
- f.** The remedies contained in this clause are without prejudice to the other terms & conditions herein.

**5. DELIVERY.** Delivery dates are estimates only & the company shall not be liable for any loss or damages resulting from any delay in delivery. In addition, we shall not be liable for any matter which results from any act of God, war or riot, extreme weather, strikes or any other events which are beyond our control.

The company reserves the right to deliver goods by installments, each installment being treated as a separate contract. Goods will be delivered at the point most convenient to our carrier, usually the goods inwards department or reception on the ground floor. Further transfer or installation within the purchaser's premises, particularly for large or heavy items, must be arranged prior to delivery & will be charged extra. We can also not take responsibility for deliveries that require pallet trucks or forklifts to offload from the courier or move the goods within your premises. Goods must be examined upon receipt and any damage or discrepancy recorded with the carrier.

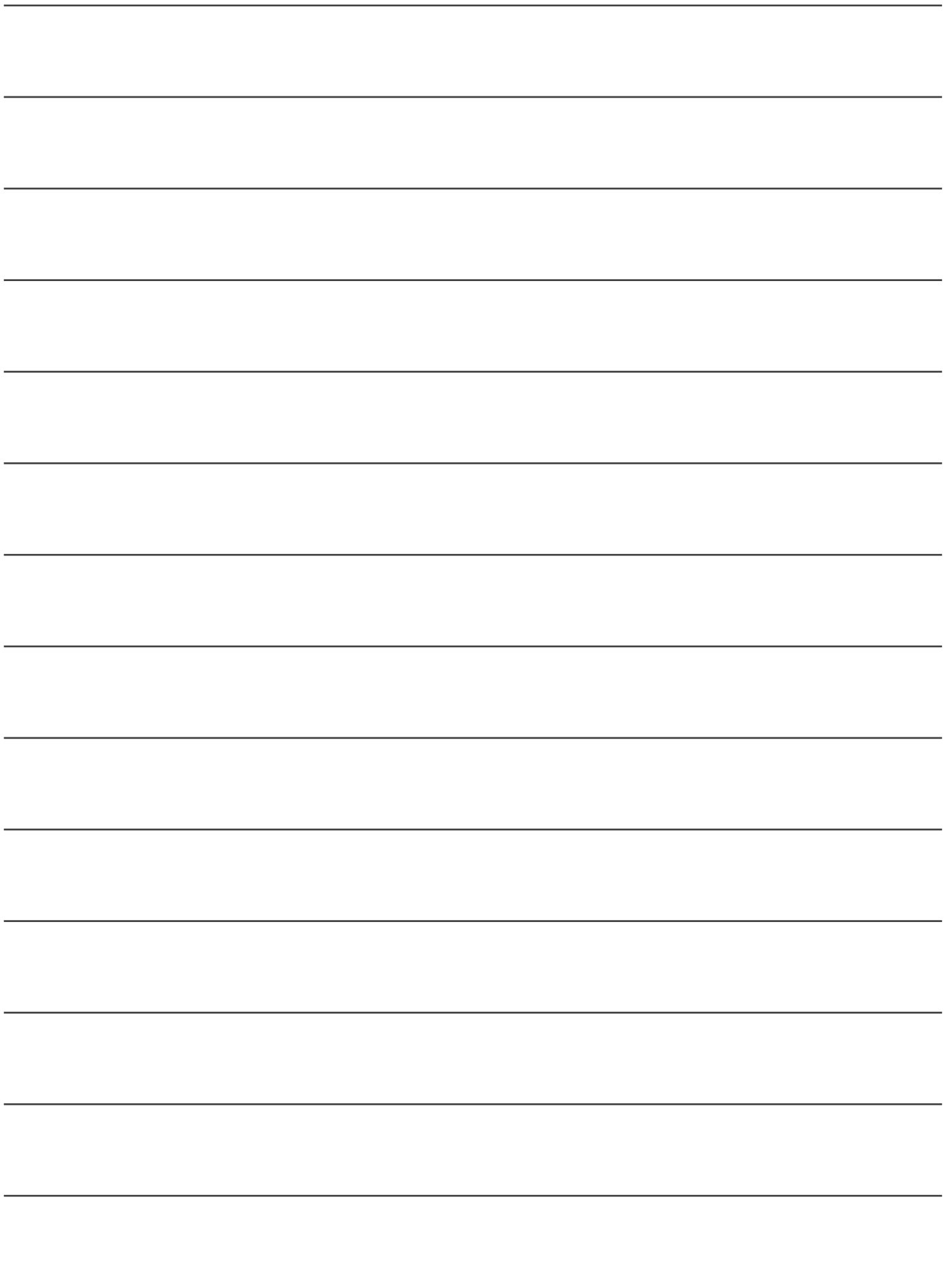
**6. CLAIMS.** All consignments must be examined upon receipt & any damage or discrepancy recorded with the carrier. Goods should be examined as soon as possible after they arrive. Any damage or incomplete delivery should be reported to us in writing within 7 days of delivery. The company will not be liable if this procedure is not followed. Total non-delivery due to loss in transit must be notified within 7 days of invoice. The end user should be responsible for the suitability of the product for use. The company shall not be liable for any indirect or consequential loss arising out of or in connection with the sale of goods. Any claim is limited to the value of the goods purchased.

**7. RETURN OF GOODS.** Standard goods will only be accepted for return after prior agreement with us & within 14 days of receipt. A handling charge may be imposed which will vary dependent on the condition of the goods when returned. Carriage charges for the outward journey plus the return of standard goods are payable by the purchaser. Bespoke goods manufactured specially for a customer will not be eligible for return.

**8. RESERVATION OF TITLE.** Goods supplied will remain the property of the company until full payment is received. In the event of sale of these goods to a third party the company reserves title to the proceeds of sale. Responsibility for maintenance & insurance passes to the purchaser on delivery.

[illegible]





**STEVENSON REEVES LTD IS A WORLD CLASS  
MANUFACTURER AND SUPPLIER OF:**

- HYDROMETERS
- SACCHAROMETERS
- ALCOHOLOMETERS
- CARBONATION TESTERS
- THERMOMETERS
- DIP RODS
- CAPACITY MEASURES
- COOPERAGE TOOLS
- SAMPLING EQUIPMENT
- NOSING GLASSES
- REFRACTOMETERS
- pH METERS

**STEVENSON REEVES LTD**

40 OXGANGS BANK, EDINBURGH EH13 9LH

T: 44 (0)131 445 7151

[SALES@STEVENSON-REEVES.CO.UK](mailto:SALES@STEVENSON-REEVES.CO.UK)