Info

COOPER'S BEER BREWING SET "Deluxe"

By purchasing Cooper's Beer Brewing SETs for easy brewing of beer at home you join those who enjoy the delight of beer brewed on their own. The sole dependency on industrially brewed beer of uniform taste is over, at last !
The production of home brewed beer is performed by employing natural products without additives and therefore allows drinking beer of truly fresh and not pasteurised taste. You can choose your favourite taste by selecting the appropriate HBS (Home Brewing Set), you can set the alcohol concentration you prefer and above all you can feast and party with your family and friends without the usual expenditures that come along with larger crowds. Your Home Brew combines higher quality with a naturalness seldom found at a lower price than the beer you shop at your local supermarket!
Home Brewing sets its standards at examples perished a long time ago. Especially in central Europe a great lot of farmers and landlords brewed their own, very special "brew". Yet partly because of lack of know-how and continuity in their efforts quality was poor and finally production changed into the hands of industrial entrepreneurs. Over the last decades home brewing became rather trendy especially in countries and regions like Australia, North America and England. The essential Know-how is due to appropriate SETs and instructional descriptions, but also because of courses and seminars on a gratifyingly high level and enables the home brewer to produce a true, pure and tasty beer! The results are impressive! – Cleanliness is paramount with brewing!
We recommend to read the following instructional description carefully and completely before starting your home-brewing experience as then you are going to achieve a satisfactory result – something that can almost be guaranteed.

Who was Thomas Cooper?

When he started to brew the by now famous "Ale" and "Stout" in South Australia in 1862, Thomas Cooper was only 26 years of age. Due to his talents he soon was able to widen his production by introducing Cooper's "Red Label", "Sparkling Ale" and "Best Extra Stout" – all beers which have become appreciated by a growing number of consumers that expect the extra quality as granted all over the world. Thomas Cooper delivered his products directly to the homes of his customers, a tradition that has been continued since 1920, not least because we at holzeis.com have joined this tradition. We bring these noble beers which still await your discovery closer to You, our esteemed customers.

Your Coopers Bierbrau Set contains:

- **25l Special-Fermentation Tank**
- **Secondary Fermentation Tank**
- **Fermentation Tube** with rubber stopper
- **Special Yeast**
- **Cleaner (disinfective cleaner)**
- **Beer Spindle**
- **Measuring Cylinder**
- **Brew Paddle**
- **Crown Capper** and crown caps
- **Bottle Brush**
- **Filling pipe** + Filling tube with valve
- detailed **despcription** and **accessories' catalogue** for numerous further types of beer!
- **1 Original Homebrew Set of Your chioce** (hopped liquid malt=beer brew)

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Strongly reccomended accessory:

- **Art. #080501 Thermometer rod-shaped** or
- **Art. #080241 Multistem Digital Thermometer**

  For a easy and precisely control of the steeping- and fermentation temerature.

Cleaning

Fundamental rule for home fermenting is the cleaning of all equipment.

Before usage the bottles, containers, brewing paddles, pipes etc. must be carefully cleaned with hot water. Subsequently the equipment must be sterilised by applying a solution of potassium metabisulphite (dissolve about 3 tea spoons in 1 liter cold water). After using up the cleaner enclosed in the set we recommend our VWP-Disinfectant Cleaner (available in 100/400g; Art.# 160701, 160702). Afterwards rinse carefully with potable water and drip-dry, further you must equip the container comprising a hole with the tap and a thermometer.

! **Use protective gloves, avoid direct contact with eyes!**
Protective glasses and protective gloves must be worn!
Keep cleaner out of reach from children! **!**

Preparing the Malt

First you must remove the plastics lid and the yeast-bag disposed underneath. Then you open the can on the side opposite the lid with a can opener. Then you put the can into boiling water for 10 minutes (do not remove the lid completely and keep it in closed position for keeping the heat in and for avoiding any contamination).

Mixing

Now the contents of the can are completely poured into the container with the tap. Then you add 1 kg sugar and 3 Litres boiling water.

To avoid caking stir well the mixture for 2-3 minutes (also refer to TIPS!).

As soon as the ingredients are well dissolved, add 19 l cold water and stir again for 2-3 minutes.

Please note: when working with Malt BITTER or CLASSIC only use 18 l cold water!

For simplifying this step we recommend using a jar with gradation, e.g. our graduated plastics jug 3 Litres with gradation (Art.# 070136)

Starting the Fermentation

Now you must check the temperature with the thermometer of the container. Depending on the ambient temperature and on a little experience on your side the temperature for starting the fermentation can be reached exactly by changing the amount of hot water (cold water respectively) for dissolving the malt (see above). You save time and reduce the risk of infection by undesired bacteria or fungi from the air or the surrounding environment.

As soon as the temperature is between 22°C and 30°C the yeast from the bag can be added and must be stirred in well with the brewing paddle (spoon with holes) for 30 seconds.

Please note: Now oxygen from the air is good and important! Later in the process this ceases to be true any longer!

!ATTENTION !
- **above 30°C the yeast can go bad!**
- **under 22°C the yeast can't start the fermentation process well!**

The mixture which you have now at hand is called "seeded wort". Now it is time to close the lid of the container and press it well onto the container to achieve a perfect sealing! A little amount of true Vaseline into the notch of the lid not only improves the tightness but also the durability of your fermentation container

Fermentation

The rubber plug and the fermentation lock, the fermentation tube, are attached to the aperture of the lid. By wetting (or applying a little Vaseline) the one end of the fermentation lock you can more easily attach it.

Now you must fill the fermentation lock with water up to the marked level (marked by an arrow). The top end has then to be capped by the red venting lid.

TIP: For facilitating the subsequent decanting place the container on an elevated level (e.g. a table).

After a couple of hours up to one day (depending on the ambient temperature and the type of beer) the venting off of gases begins which serves as a confirmation of the active fermentation. The **fermentation** itself continues for a period of **3 days (summer) up to 6 days (winter)**, if the temperature can be maintained steadily in a range between 22°C and 30°C. The temperature depends largely on the ambient temperature of the room where the container is located. Is it under 22°C, some more days will be required. "Drier" beers (taste and type) are then to be expected.

TIP: For classic lager and Pilsner beers (bottom-fermented beers) this will be the preferred method, but should only be followed by the more advanced and experienced home brewer (fermentation at approximately 15-20°C). Please note: For true bottom-fermented beers you also need true bottom-fermenting yeasts (is not comprised in the SET) and even lower temperatures. Let us consult you to fine results!

More questions? We love to consult You with all our KNOW-HOW! Our service line …

Beer Brewer HOTLINE +43 2774 20470 (Expert Advice MON-FRI 9-17 hrs., subject to charge 0.88 Euro/min.)

! Air the room regularly where the fermentation takes place !
Small amounts of CO2 do not cause any harm. Nevertheless the site of the fermentation must not be located in bedrooms or children's rooms!

Monitoring the Fermentation

As soon as a significant decrease in the venting off can be observed, the density of the liquid is measured by means of a density meter. At first fill the probe – the measuring cylinder – by carefully opening the tap that is arranged on the container, then insert the density meter into the filled cylinder. (The measuring cylinder can be formed by connecting the transparent plastics pipe and the red bottom cap.)

Guidelines :

- 1.021 – 1.046 ; equates approximately a original wort of 8-12°P (Light beer-Strong beer)
  Start of the fermentation (high density)
- 1.003 – 1.006 ; equates approximately a original wort of 2,5-4°P
  End of the fermentation, Bottling time, (already reduced density / less sugar)

!ATTENTION! Slowly drain the wort into the probe to avoid sucking in of the solution contained in the fermentation lock (spill first "swallow"). The wort from the probe must also be spilt (or drunk or used for cooking ☺) after the measuring process. Danger of infection !!!

Cleaning of Bottles or Pressure Tanks

!Attention! Use only vessels which are pressure tested or, even better, equipped with a relief valve ! Do not employ old industry bottles (hairline cracks!). Do not employ siphons and other untested bottles! BOTTLE FERMENTATION can't be compared to filling in beer that has already been fermented and filtered!!! Do not treat this carelessly! Massive injuries can be result from this!

The bottles already washed need to be sterilised with the metabisulphite solution (added disinfectant: dissolve about 3 tea spoons in 1 liter cold water). Start pouring the solution into the first bottle and shake bottle well, then pour the solution directly into the second bottle and proceed as before. After 10 bottles replace the solution for a new one and continue the procedure. Finally rinse the bottles with potable water and drip dry. A valuable and appreciated aid for this final step is our Bottle Drip-Drying Stand (Art.# 070228).

Decanting

First sterilise the pipe and the second container and rinse carefully (new solution!). Now remove the fermentation lock from the first container, attach the tube at the tap and decant the wort into the second container for separating the sediments formed during the fermentation process. These remain in the first fermentation container! (=natural clarification results in better taste!)

!IMPORTANT!

- The tube attached to the tap must reach and touch the bottom of the second container to prevent the forming of foam!
- For preventing the rising of the sediments to the surface do not shake the first container (only tilt with extreme care as long as pure beer is drained!)

Forming of Carbon Dioxide, Pressure-/Maturation-Fermenting

Dissolve 80-120 g sugar (wheat beer 180g, weigh carefully!) in little water on the stove and add to the already decanted wort. Stir for approximately 30 deconds and close the container with the lid which should be labelled ("Do not employ ……").

The addition of this solution starts a small and fine after-fermentation also called pressure- or maturation fermenting. It exclusively serves the purpose to "carbonate" the beer, i.e. the enhancement of carbon dioxide in the pressure vessel.

!Attention !
Only stir with sterilised brewing paddle – else you risk an infection!!!

Filling of Bottles / Party Kegs (Pressure Containers)

Put container on a base which is significantly higher than the bottle neck (better even higher than on the image!).

Clean the decanting equipment thoroughly. Again let it drip-dry and sterilise it (disinfectant cleaning fluid!).

Now insert the flexible tube into the opening of the lid respectively insert it to the bottom of the container.

!IMPORTANT!
The rubber seal that is arranged on the flexible tube must seal the opening in the lid tightly and securely.

Insert the tube with the small filling tube on it's end into the bottle down to its bottom. After the lid has again been pressed on tightly (tightness!), you must blow into the small tube on the lid to initiate the decanting into the bottles. As soon as the level of the bottle neck has been reached, you must raise the rigid tube to interrupt the flow – better even squeeze or block the tube. Ask for a "tube squeezer" for more convenience in filling.

Then continue with the other bottles as told above.

Closure of Bottles

Put the crown cap onto the bottle, while keeping together the levers of the closing device, and then with ever increasing strength press them downwards. After a few rounds of capping you acquire more skill and speed in handling the device.

TIP :
In case you feel wary about the pressurized bottles with such a fixed closure (!ATTENTION! only use pressure-tested industrial bottles!) – maybe not even a bad idea when you are still in your first attempts – then we recommend to wait for some more experience overall and first use our flip-topped beer bottles, brand-new and secure (Art.# 130770 or the nice price article with 15 pieces in a cardboard box Art.# 130771). These flip-topped bottles can be opened easily for later pressure testing so that a too high pressure in the bottles during the first tricky 3 days can be vented off. You should cover the bottle to be opened by an old blanket and also wear protective leather gloves. NEVER fill bottle just half full, but always fill it up to 1-2cm under the top for avoiding a larger das reservoir. When you follow these tips, this process doesn't pose any danger to you!

Even simpler and safer is filling up our 5-Liter-Party-Kegs with relief valve (e.g. Art.# 191916 and Art.# 161937; just enter these numbers on **www.holzeis.com** and you will be served well). Less work and simpler handling! Besides you can top your pleasure by adding the holzeis – MINI PUB which perfectly fits the kegs – would also make a nice present – to really experience the original draught feeling in your own home (refer to Art.#162003, #162004). The keg can also be cooled in your refrigerator!

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Maturation and Preservation

The second fermentation phase is successfully simplified when keeping the bottles standing upright at temperatures between 15°C and 25°C for 14 days. Subsequently you should store the bottles in a cooler room (10-16°C).

Although the beer can already be consumed after app. 2-4 weeks after the filling date, the taste of the beer improves with an additional maturation period of one or two months in the bottle. This improvement of the taste can even extend over 6 months. The beer can still be consumed with perfect taste after 8 months after the filling date, if the bottles are stored at a constantly low temperature. Alcohol content and carbonation also influence largely the shelf life! **More information regarding these topics is available in our numerous courses or in literature available at www.holzeis.com.**

Enjoy Your Home-Brew

The sediments which settle on the bottom of the bottle make your beer typically opaque and are completely harmless. On the contrary they are even healthy and add the special looks and taste to the home-brewed beers different to the industrially produced, filtered and pasteurised beers. You enjoy not only a special beverage but also choice viands!

TIP: If you choose to avoid to cloudy a beer, we recommend storing the bottles previous to drinking in an upright position in your refrigerator or in your respective cooling compartment. Then when pouring never stop or put the bottle back into the upright position but continue filling the glass after the foam has settled a bit with the bottle still in the inclined position. So you pour a clear beer that still holds all the precious ingredients!

Without filtration, easily done! Your beer is best served with a temperature of approximately 6-8°C with Lager, Pilsner and 10-12°C for the other top-fermented types.

Fixing the Alcohol Content

By changing the amount of sugar to be dissolved in the wort you achieve the following final alcohol contents in the beer:

Sugar [g]	Final alcohol Content [%]
1,000	4,7
0,750	4,1
0,500	3,5
0,250	2,9
0	2,3

!IMPORTANT!
The amount added before the bottle fermentation must not be increased as this would result in too much CO2 in the bottle and would cause it to explode or would let the beer contain too much carbon dioxide!

Additional TIPS from Your Professional!!!

Mixing of Ingredients

As alternative to the method described above we recommend for a better mixing of the ingredients to pour the content of the malt can previously submersed in boiling water into a big cooking pot. Now add 1 kg sugar and 2 l water and stir carefully during the 10 minutes of heating (NOT BOILING) to prevent the wort from attaching to the pot bottom.

Now add 20 l cold water into the plastics container and mix the heated wort with the water. Then you can start the fermentation.

The Temperature

The correct temperature is essential during all phases of the beer brewing process. When the yeast is added, be sure the temperature is within the recommended 22-32°C, something that could easily be influenced by seasonal or ambient environmental conditions.

In case the temperature is too high, we recommend cooling down to 32°C by putting the container into cold water.

In winter best put the container nearby a source of heating (e.g. radiator of central heating) to reach the recommended temperature or use a heating belt (see Accessory, Art. 160860).

Why Does the Fermentation Lock Vent Off?

During the fermentation process yeast transforms sugar into alcohol and CO2. The fermentation lock allows the carbon dioxide to leave the container and simultaneously prevents that the wort gets into contact with the environmental air as such a contact can deteriorate the final taste of the beer. At the end of the fermentation process you will note a significantly reduced venting off. The moment for filling the bottles or kegs is drawing near!

The Density Meter

The density meter is a device for measuring the density of a liquid and by this reveals the progress of the fermentation. The instrument has a partitioned scale whereon the submersed part indicates the "specific weight" or density of the liquid. At the start of the fermentation the specific weight of the wort ranges between 1.021 – 1.040 of the density meter. During the fermentation the yeast transforms the sugar into alcohol and carbon dioxide (CO2).

The latter is vented off and consequently the specific weight is reduced. At the end of the fermentation you can expect values between 1.003 – 1.040 on the density meter. At this moment the beer is ready for a secondary fermentation and can be filled into bottles, party kegs or the bog 25 Liter "King KEG" pressure

barrel (Art.# 161402). For measuring the density the sample jar must be filled and the density meter must be immersed, as described above.

The Sugar and the Bottling Procedure

The sugar added to the wort before the bottling ("feed") is fermented as in the main fermentation process by the residual yeast. The Carbon dioxide formed in this process is dissolved in the liquid and creates the typical foam head while pouring the glass. Store the beer before serving over a longer period in a cool place! Such the carbon dioxide is better and finer integrated and this results in a fine, creamy foam!

The Disinfectant

All equipment like containers, tubes, brewing knives, bottles etc. need to be treated with the disinfectant solution. Dissolve 3 parts potassium metabisulphite in 1 l cold water. (or use refill VWP-Disinfectant, even more economical, 1 part in 5 liters of cold water; Art.# 160702). The equipment must be rinsed with potable water so that all residues of the disinfectant are washed away to prevent the beer from being spoiled by the disinfectant!

The Tap

The end portion of the tap when vertically oriented should not touch the base on which the barrel rests. In such a case the end portion is turned horizontally or the container is arranged so that the tap projects over the edge of the base. Before the start of a fermentation process check whether the tap is securely fixed to the container by the respective ring and that the lever is turned into the OFF position.

The Water

For every fermentation process you need 22 l good water. In general good water from the tap is perfectly suited for your home brewing purposes. In case the available water is heavily chlorinated or extremely hard or even smells strangely it must be boiled and then cooled down again. Even distilled water (suitable for food) can be used/added.

If you want to improve your own water, we can recommend the Cadurex water softener for beer-brewers and distillers (Art.# 070236)!

The Cleanliness

Like in the big factories we need to obey the principle of perfect cleanliness. The use of clean equipment guarantees the quality of the final product. To simplify the cleaning of the bottles we recommend immediately rinsing an emptied bottle with warm water so that sediments can't attach to the bottom of the bottle. The same is true for all equipment which needs to be cleaned carefully after use.

The Closure

Before filling into bottles you must check whether the closures available fit the bottles. The capping device must be adjusted to the size of the closures used. Never use closures with cork inlays!

See also to TIPs above referring to beer bottles with flip-top closures and to party kegs!

Typical Mistakes in Home-Brewing and Their Causes

Too High Concentrations of Carbon Dioxide

Before bottling more than the required 180g sugar were added or the beer was bottled before the end of fermentation.

The Beer Lacks Body (Has a Shallow Taste)

- Less sugar than the specified amount was added.
- Too much water was added resulting in a light beer without character.
- The main fermentation was performed at too low a temperature.
- The beer wasn't bottled in time at the end of the fermentation, but remained some more days in the fermentation container.
- The bottles weren't stored at temperatures between 20-30°C for 14 days.

Forming of a White Skin on the Surface

The fermentation was performed too slowly due to too low a temperature or the beer is foul due to late bottling. (Foul beer has a typical sour taste).

Unpleasant Taste

The beer is foul because of the reasons mentioned above or because of insufficient sterilisation with a solution of water and metabisulphite.

The Fermentation Doesn't start

- The wort is too cold and the yeast can't, therefore, start the fermentation process.
- The wort is too warm and, therefore, has spoilt the yeast.

6 Good Reasons for Using Cooper's Malt

Lager

Cooper's Lager is produced of best Australian barley malt and hop. It is a beer with body, which sports a special taste and freshness. Cooper's Lager is the most widely drunk type worldwide.

Stout

Cooper's Stout confirms the main characteristics of the "Stout" family of being robust and full of aroma. The rich and unique texture of the beer is achieved by a specially roasted malt which is responsible for the typical dark colour.

Draught

Cooper's Draught with full impressive aroma caresses the palate with its slightly bitter, clean taste. This beer with fresh and glossy colour is in demand especially in summer.

Real Ale

Cooper's Real Ale is outstanding because of its firm taste which is supported by a slightly fruity character. A true "Ale" in style and colour.

Bitter

Cooper's Bitter of Anglo-Saxon tradition is produced with an increased amount of malt and aromatic hops. Darker than the type Lager and with a refreshing taste, which is the foundation of its fame among connoisseurs.

Classic

Cooper's Classic, a "blend" of malt crystals and roasted malts, responsible for the intense colour of ruby, while the selected hop achieves a generous fruity taste. A beer with body in the traditional style of "Ale".

… In home-brewing the phase of preparation of the bottles for the bottling process is definitely the most work-intensive. We therefore offer you our best performing accessories that simplify the cleaning, the closing and the storing of the bottles.

Crown-Cork Capping Device (tabletop model), Art.# 070119

This device allows capping of bottles with guaranteed stability and precision. Available for bottle closures of 26 mm and 29 mm.

Heating Belt, Art.# 160860

Heating cable – allows wort to maintain the ideal fermentation temperature. The heating belt heats the wort during the cold season in an economic way. Also appreciated by distillers!

Bottle Cleaning Device "BLAST", Art.# 070082

For direct connection to the water tap (garden water connection or adapter to replace "Spray Head"). This article allows bottle cleaning at high speed. The water is sprayed into the interior of the bottle with high pressure and by this cleans the bottles. All controlled by simple hand pressure.

Automatic Sulphuriser/Bottle Cleaner, Art.# 070230

This article allows bottle cleaning at high speed AND with sterilising fluids. The water filled in the tank is sprayed into the interior of the bottle with high pressure, all controlled by simple hand pressure. The device can also be filled with an alcohol solution or MS Combi-Acid and can be mounted on the Bottle Drip-Dry Stand.

Bottle Drip-Dry Stand, Art.# 070228

After cleaning the bottles can be stored on the Bottle Drip-Dry Stand till usage. Available as a stand for 90 bottles.

A wide range of further beers as well as new ideas for brewing beer, e.g. production with fresh barley malt, but also courses & workshops for your successful start in this delicious hobby are offered to you in our catalogue and on **www.holzeis.com**

More questions? We love to offer advice to You with all our background and know-how! Our service line …

Beer brewer Hotline +43 2774 20470 (counselling MON-FRI 9-17 o'clock, fee: 0.88 EURO/min)