DO YOU WANT TO BREW SOUR BEER? FERMO BREW ACID WILL HELP YOU BREW IT BETTER!

FERMO BREW ACID IS THE PERFECT SOLUTION FOR BREWING EXCITING & DISTINCTIVE SOUR BEERS WITHOUT RUNNING THE RISK OF CROSS-CONTAMINATION.

Sour beers have a long and rich history. In fact, when beer brewing began hundreds of years ago many beers were sour, as they contained naturally occurring bacteria which gave the beverage its distinctive sour taste. Each variety is intrinsically linked to the places where these beers were born, from the **Belgian Lambic** and **Flanders Red Ale**, to the **German Gose** and **Berliner Weisse**, amongst other signature European styles.

Traditionally, these beers are brewed through the spontaneous fermentation of lactic acid bacteria, ***Lactobacillus*** and ***Pediococcus***, and the intricate alteration by other microorganisms such as ***Saccharomyces*** and ***Brettanomyces***. Each of these live bacteria and organisms play a specific role in creating the diverse, complex flavour profiles of sour beers.

THE REDISCOVERY OF SOUR BEERS

In the last few years, **sour beers** have been reborn and rediscovered by both brewers and drinkers alike. Modern recipes offer a distinctive, diverse profile compared to more traditional styles, and it is thanks to these unique and varied flavours that sour beers have significantly grown in popularity.

This resurgence is linked to brewers' constant search for new twists on the most popular beer styles – **those that maintain the natural acidic flavours** of sour styles but **with a less sharp taste**. This is possible thanks to a fermentation process guided by carefully **selected microorganisms** (**lactic bacteria** and **yeasts**), which ultimately lead to a lower acidity level with reduced phenolic and acetic notes.

FERMO BREW ACID: YEAST SPECIFICALLY FOR SOURS

The lactic fermentation of sour beers requires a specific set of solutions. **FERMO Brew Acid is a yeast that is used instead of lactic acid bacteria** in the wort acidification process. It belongs to the ***Lachancea thermotolerans*** species, isolated from spontaneous fermentation by the University of Dijon. Its uniqueness lies in its ability **to transform monosaccharides in the wort into alcohol and lactic acid**. The result is an extremely **pleasant** and well-balanced beer with a **rounded**, **refreshing acidity**, (typically at a pH of 3.5 or lower), without compromising the classic fermentation aromas or a clean sensory profile.

WHAT ARE THE ADVANTAGES OF USING FERMO BREW ACID?

Not only can you produce sour beers in a short period of time with FERMO Brew Acid, but there are also a whole host of benefits and advantages:

1. **It is very easy to use** and should be treated just like a conventional active dry yeast. Just make sure you continue to measure the pH levels to monitor the acidification throughout the fermentation process.
2. **It drastically reduces the risk of cross-contamination** due to its nature, which is neither a beer spoilage bacteria nor Brett strain. It therefore doesn't require dedicated brewing equipment or specific sanitisation routines.
3. Any residual presence of **FERMO Brew Acid** on the equipment will not be able to grow with the presence of conventional brewing yeasts (***S. cerevisiae***), so **future batches won't be contaminated**.
4. **It allows easy pH management**. With **FERMO Brew Acid** the pH drops gradually, making it easier to monitor pH levels and pinpoint the right time to add the sequent brewing yeast's pitching.
5. **It ferments in a wide temperature range**, i.e. 11 to 25°C, without producing a pungent sour character.

TIPS FOR USE

Being **easy to use is a key benefit of FERMO Brew Acid**, as highlighted previously. The wort can be enriched with nutrients provided by **Fermoplus Fruity** or **Fermoplus Fragrance** if desired. Initially, fermentation won't be very intense, so we advise monitoring the process by measuring the pH drop. Once the pH level is higher than 0.3 from the desired pH, **the second strain can be pitched to stop the acidification** activity and **complete the further alcoholic fermentation**.

For instance, if you desired a final pH of 3.5, the ideal level for the sequent pitching of brewing yeast of your choice would be at a pH of 3.8.

Other benefits by using **FERMO Brew Acid** is the reduction of brewing costs since **there is no need for expensive acidified malt** in the mash, **neither any addition of lactic acid** to the wort kettle, **nor the use of mixed microflora** (i.e. beer spoilage bacteria and yeasts) during the beer fermentation.

HIGH VERSATILITY FOR THE PRODUCTION OF A WIDE RANGE OF SOUR BEERS

Whatever beer style is desired, **FERMO Brew Acid ensures a low final pH** (around 3.5), which guarantees **pleasant sourness** in harmony with other flavour attributes and **excellent drinkability**. The production of acidity and the decrease in pH are a result of the concentration of simple sugars in the wort, which are normally very low. If the aim is to achieve a lower pH, the addition of dextrose or fructose to the wort could be considered to supply more substrate, which will then be transformed into lactic acid.

FERMO Brew Acid offers brewers plenty of opportunity for customisation: from inoculation with conventional brewing yeasts (S. cerevisiae) to maturation in wooden barrels and the use of fruits or other flavouring ingredients. Its combination with various brewing yeasts **allows you to brew any sour beer variants**, such as **American-style Sour Ales**. Lactic acid bacteria are sensitive to the antiseptic properties of hops which limit the amount of hops used, resulting in potential contamination risks. **FERMO Brew Acid**, on the other hand, is not sensitive to the antiseptic effects of hops, leading to acidic fermentation in even heavily hop forward worts or **dry-hopped beers**.

Last but not least, **FERMO Brew Acid** can develop varied **fermentative aromas and fruitiness** in taste and a **complex aftertaste**, which can be controlled and adapted through the fermentation temperature. At 18°C **FERMO Brew Acid** will evolve towards citrus notes of grapefruit, while at higher temperatures (25°C), the profile will be more orientated towards tropical fruit notes such as mango and papaya.

PRODUCE YOUR STYLE IN THE NEXT PAGE >

PRODUCE YOUR STYLE

FOR THE IDEAL COMBINATION WITH FERMO BREW ACID WE RECOMMEND THESE YEASTS

Berliner-Style Weisse

Sour Saison

American-Style Sour Ales (e.g. Sour IPA)

Belgian-Style Flanders Oud Bruin or Oud Red Ale

Belgian-Style Fruit Lambic / Belgian-Style Gueuze / Contemporary-Style Gose