



THE STAGES OF BREWING OUR LAMBIC BEERS

STAGE 1 BREWING

A room called the grist mill houses the mills that grind the malt and wheat before they are brought to the brewhouse. Next to this building is the old brewhouse that was built in 1856. The facade dates back to 1869 but, curiously, it was the 9681 vintage that was sealed in there... Had the workers who made the façade had too much lambic to drink? The old brewhouse is home to a beautiful open red cast iron vat, the predecessor of today's mash tuns. This is where the «madams» could be found: large perforated plates that, when they were in motion, were reminiscent of how ladies' posteriors would sway as they walked.

The current brewhouse was built in 1992 and has a capacity of 18,000 litres of wort per brew. The pumps, valves and mixer that produce the brew are on the ground floor. On the upper level of the brewhouse are four spectacular copper vats: the mash tun, the maisch vat, the filtration vat and the boiling vat.

The mash tun

The sugars necessary for producing beer are extracted from the ground grains in the mash tun (70% malted barley and 30% wheat). The brewing water and the grains form a paste that is brought to a variety of temperature levels with the addition of water at each level. This allows the starch to be extracted from the grains, producing a milky solution. At 78 °C, the starch is converted into fermentable sugars by the action of enzymes. These are the sugars that will subsequently be converted (by fermentation) into alcohol flavour and aroma components.

The Maisch vat

The milky solution produced in the mash tun is transferred via two pumps to the Maisch vat. In this vat, the temperature will be increased to 90 °C, thereby stopping the enzyme action and allowing some of the starch to not be converted into fermentable sugars. This makes it easier to monitor the fermentation process later on.

The filtration vat

The filtration vat is where the insoluble components of the grains (the hull) are separated from the sugar solution (the wort). The hull is deposited onto filtration plates and forms a cake that filters the wort which then goes into a pot. Residue (slop) are sold as livestock feed to farmers in the region.

The boiling vat

Once the wort has passed into the boiling vat, the cooking phase can begin. Hops that are more than one year old are added during the cooking phase. This will ensure that the lambic can be kept for a longer period of time. The exact cooking time (between three and four hours) depends on the wind and density of the evaporating vapour. Before being poured into the cooling tray, 10% of the brew (more than 2,000 litres of total 22,000 litres!) disappears as a vapour. This evaporating vapour is poetically called 'the angels' share'...





THE STAGES OF BREWING OUR LAMBIC BEERS

STAGE 2 FERMENTATION

After cooking, the wort is brought to the huge cooling tray nearby. This is the most mysterious aspect of lambic brewing. At night, the wind and the local microflora inoculate wild yeast into the wort which is cooling. Since this happens without human intervention, it is called beer of spontaneous fermentation. The cooling tray is essential to the production of lambic. The next day, the wort is pumped to the fermentation vats. Through a variety of successive fermentations, the wort slowly turns into lambic. This occurs in large oak barrels (foudres) or stainless steel vats to which are added wood chips, like in the wine industry. During the first six to seven months, fermentation converts the sugars into alcohol, taste and aroma components.

STAGE 4 BLENDING

In order to produce our old gueuze, we blend old and young lambic that has matured in large oak barrels called foudres. Young lambic still contains enough yeast and sugars to continue to ferment in the bottle. Old kriek does not require any blending. After the cherries ferment for six months in a lambic that is at least six months old, old kriek is directly bottled for a second fermentation process. In order to produce our other fruit beers, a fresh juice of exceptional quality is blended with a young lambic that is at least one year old. This mixture will again ferment and macerate for up to 3 days. In this case the same wild yeast that are still left in the mix will continue to react with the sugar contains in the blended beer.

STAGE 3 MATURATION

After the fermentation process, it is time for the maturation process, which lasts at least six additional months, but which can also last for several years. It is during this stage that the characteristic taste of an old lambic develops. Since lambic must undergo several months or even several years of fermentation and maturation, a lambic brewery must have enough storage space. Lindemans Brewery always has more than 6 million litres fermenting and maturing, which is the equivalent of 24 million glasses of beer.

STAGE 5 BOTTLING

After the lambic has been meticulously blended or mixed, it goes to the bottling workshops which have been operational since 2003 and 2014. Every day, thousands of bottles are filled automatically in the best conditions and in a spotlessly clean environment.

