

# HYDROMILL

## FINE GRINDING UNDER WATER

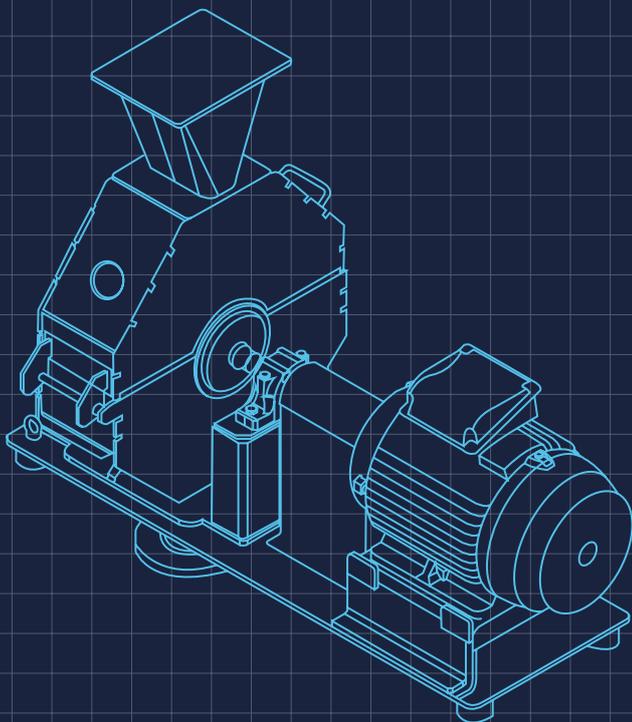
The HYDROMILL is a milling process of fine grinding of grains under water and associated with the Meura 2001 mash filter, leads to the production of clear wort, with excellent extraction yields and high productivity (14 brews per day and more).

The development of the HYDROMILL has two specific aims:

- ▶ **Improved quality of the wort** through oxygen-free grinding
- ▶ Ability to **process grains with high moisture** content, like for example green malt (malt before kilning).

**Green malt processing** is an important opportunity for the brewing industry to lower its carbon footprint. Knowing that kilning is a major energy-intensive step, the use of green malt for beer or extract production is more and more considered. Further, thanks to its high enzymatic activity, addition of green malt in brewing is interesting to speed-up the mashing process or when using adjuncts.

**Meura's HYDROMILL is the perfect solution for fine milling of green malt. It produces very homogeneous mashes suitable for filtration on a Meura 2001 filter , keeping advantages on wort clarity, cycle time and extract recovery.**



## MAIN ASSETS

- ▶ **A better wort quality** through oxygen free grinding under water at mashing in temperature (drastic reduction of the nonenal potential and other staling flavour components).
- ▶ Able to process **all kinds of grains**, at any moisture content.
- ▶ Able to process **green malt**, allowing to reduce the carbon footprint of the brewing process.
- ▶ The HYDROMILL is **explosion-proof** as it works under water.
- ▶ **Low maintenance costs.**

## TECHNICAL DESCRIPTION

The design of the **HYDROMILL** is based on a hammer mill working under water (patent pending) and is similar to Meura's dry milling system (CLASSICMILL) meaning hammer milling with horizontal shaft.

A feeding rotary lock equipped driven by a frequency converter automatically controls the feeding of the stainless steel mill chamber according to the nominal power of the motor. The machine is more compact compared to the Classicmill since the air ventilation system is removed. Instead of air, water helps milled raw materials to flow through interchangeable sieves. Water injectors are placed at different positions to ensure efficient milling and rinsing of the milling chamber.

The total water volume during milling is corresponding to the requested water:grist ratio for mashing-in. From the mill, the mash is either dropped down by gravity into the mash conversion vessel (bottom filling) or transferred by a Mechamasher to the mash conversion vessel. A main advantage of the **HYDROMILL** is the possibility to mill a wide range of raw materials, especially green malt with its specificities (high moisture content and presence of roots).