

MARKETING INFORMATION

Applications in the FOOD sector

Beverages Department

BEER

In BEER production plants, the chemical-physical analyses carried out by continuous "ON LINE" analyzers are aimed at automatic regulation of the parameters analyzed.

In the last few years, we have developed different "ON LINE" analyzers that concern different points of the production process of the beer sector, both traditional and high-gravity or without alcohol.

A beer production plant can be represented as shown in the figure below.

PROCESSES INVOLVED:

Treatment of water

An automatic **AT-02** titrator is used for the control and dosing of softening and chlorination products.

The analyses currently inserted are:

pH, alkalinity (2P-M), hardness and residual chlorine.

Malt extraction and pre-flushing with must

The **UR20** refractometer is used in the control of extraction of malt and in the pre-flushing with must or cooking, to measure the **PLATO degree**. While in the separation and drainage phases the **UT-02** turbidimeter is used to measure the **EBC degree**

Fermentation and storage

The **UR20** refractometer is used to control the transformation of the malt into alcohol, i.e., the fermentation.

Filtration and high-gravity dilution

In the final filtration and **HG** dilution, to control the mixing the **BAS-01** system is used:

- the **IB-04** analyzer: to measure the original **PLATO** degree, of alcohol and the **VV of CO₂**
- the **UT-02** analyzer: to measure the **EBC** degree
- the **automatic regulation** system: both for control of dilution and the **CO₂**, as well as for handling production heads and tailings
- the remote control and data acquisition systems referred to as **MULTILAB** and **DATAMAS**

Sanitization plant

■ to measure the % of soda in the sanitizer and in the rinse water: the mod. **RM-00** conductivity and pH transmitter indicator receiver, with automatic calibration of sensors by automatic recognition of standard solutions;

measuring the conductivity (mS): multielectrode probe, antifouling, suitable for operating at a temperature of 120 °C and pressure of 6 bar.

Measuring the pH: pneumatically removable probe holder, combined electrode, programmer for measuring and washing phases.

