AEROSET™

Wort handling

Application
In the aeration module, AEROSET™, cold wort is continuously aerated/oxygenated prior to fermentation.

Working Principle
Air is injected directly into the product line, without the need for utilizing any porous disc or sinter candle.

If the concentration of oxygen in the wort is too low, the yeast growth will be slow, resulting in a slow or “sticking” fermentation.

In case the oxygen concentration is too high, this may result in a large yeast growth that again may result in a reduction in ethanol yield.

Therefore, the purpose of controlled aeration is to provide the correct amount of air / oxygen in the wort, necessary to achieve a correct and repeatable fermentation result. It is important to ensure that the added oxygen is dissolved totally.

A specially designed mixer/accelerator makes sure that the oxygen dissolves rapidly into the product by a combination of turbulent flow and increased pressure.

The desired aeration rate is set at the control panel. The flow meters in the wort and air pipes measure the actual flows.

Signals are transmitted to the controller, in which the desired air/wort ratio is pre-selected. Any variations in the actual ratio will be corrected with the gas-modulating valve.

The control panel with PLC automatically controls the plant operation.

Relevant process data displayed:
- Actual and setpoint oxygen addition
- Actual and setpoint flow rates
- Plant / alarm status
- Controller settings

Basic Unit
The module is preassembled on a frame and factory tested with water. In compliance with food industry regulations, all components in contact with the process liquids are made of stainless steel with heat resistant seals. It is designed for CIP and sterilization.

Benefits
- *Static mixer providing efficient dissolving*
- *Automatic dosing control*
- *Sterile air filter*
- *Holding tube*
- *Pressure control during aeration*
- *Sanitary design*
- *Compact design*
- *Low maintenance*

Technical Data

Capacity ranges, hl/h: 50-100, 100-180, 180-240, 240-550, 550-1000, and 800-1300

Utility data: Depending on capacity range

Dimensions

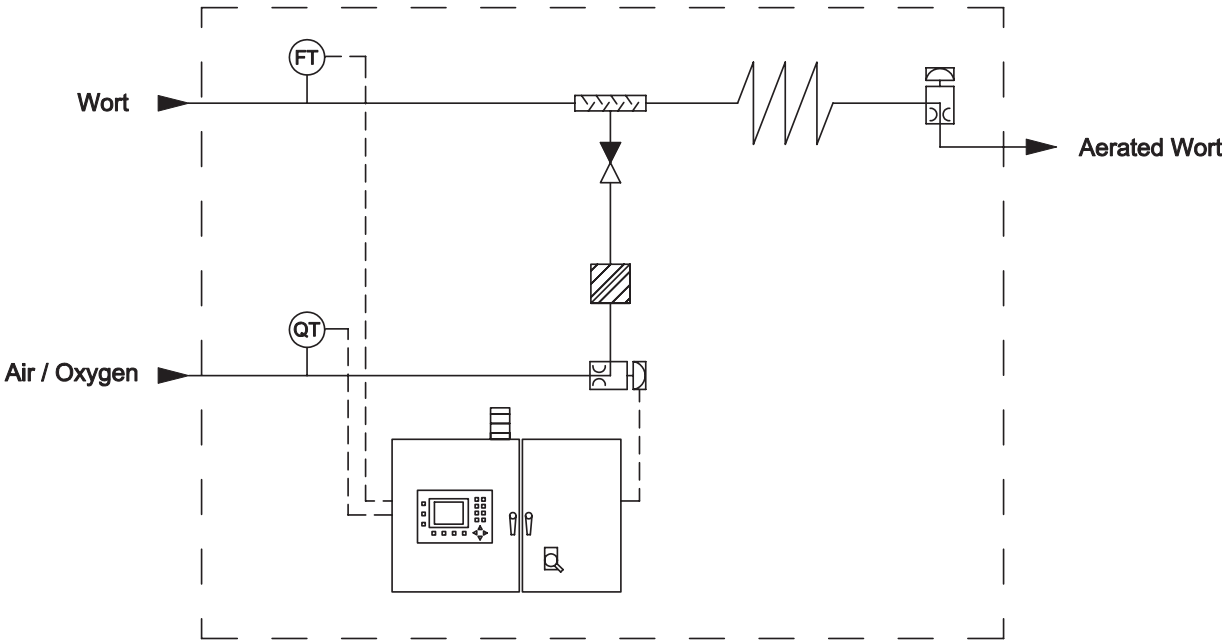
Approximate dimensions and weights depending on capacity range:

L = 1.5 m W = 1.0 m H = 2.3 m

Weight: approx 250 kg

Optional Equipment

- Different automation levels
- Remote control
- Communication with other control systems
- Yeast pitching system AEROPITCH™ (see separate PD leaflet)



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