Alfa Laval ALDOX™ MINI process module

Water deaeration

Introduction

The ALDOX™ MINI process module is designed for production of deaerated high-quality water for breweries and soft drink manufacturers with low capacity demands.

Application

- Beer production
- Soft drink production.

Benefits

- Hygienic and compact skid-mounted design
- Water dissolved oxygen (DO) levels down to less than 0.01 ppm in less than 5 minutes
- Carbon dioxide retention efficiency above 95%
- No pressure rated or heavy-duty vessels needed
- Fully automatic module with PLC and integrated CIP program.

Design

ALDOX MINI is a self-contained process module, pre-assembled and factory tested before delivery. It is designed for CIP and in compliance with food industry regulations, all components in contact with the process liquid are made of stainless steel with heat resistance seals.

Working principle

Oxygen is removed in the ALDOX column, provided in a space-saving design. The high desorption of oxygen is achieved using carbon dioxide (CO_2) as a stripping gas through a packed bed operating at atmospheric pressure. Water is distributed at the top of the column and trickles downward counter currently to the CO_2 flow. The internal packing material, specifically developed for this application, ensures a large effective contact area between water and stripping gas.

The virtually oxygen-free water collects at the bottom of the column. To deaerate still drinks, nitrogen (N_2) is used instead of CO_2.

The ALDOX MINI module is fully automated with a PLC system controlling the plant operation. Selection of functions through easy and logical operator interaction via a colour touch panel.

Options

- Improved deaeration level to 0.01 ppm
- Dissolved oxygen analyzer.

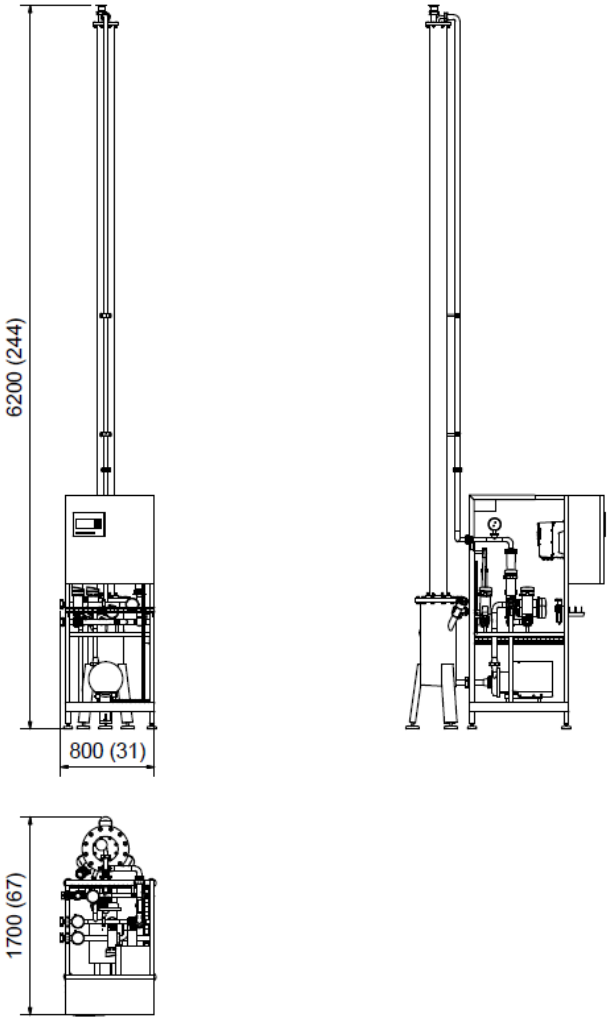
Technical data

Capacity range	10-40 hl/h (4.4-17.6 gpm)
Deaeration to	< 0.02 ppm
Utility data	
Temperature range	10-30°C (50-86°F)
Installed power	3 kW
Carbon dioxide[1]	1-10 kg/h (2.2-22 lb/h)
Purity of carbon dioxide	99.98%
Gas losses	< 5%

[1] Depending on capacity and temperature

Dimensional drawing

Approximate dimensions and weight	
Length x width x height	1.7 x 0.8 x 6.2–7 m 67 x 31 x 244–276 inches
Weight	500 kg (1,102 lbs)



How to contact Alfa Laval

Up-to-date Alfa Laval contact details for all countries are always available on our website at www.alfalaval.com