DEAERATED WATER SKID

Oxydrop

Deaerated brewing water for dilution and blending. A packed column strips the oxygen with CO_2 at atmospheric pressure. No vacuum, no heat, no membranes.

CAPACITY	RESIDUAL O_2	CO_2 USE
5 hl/h	< 20 ppb less if needed	0.17–0.31 kg/hl 7.6–13.9 NL/min

What you get

Water at < 20 ppb O_2
From 8–11 ppm air-saturated, in one pass, into your buffer tank.

A fixed 5 hl/h, running unattended
Start, stop, CIP and safe stop from its own PLC.

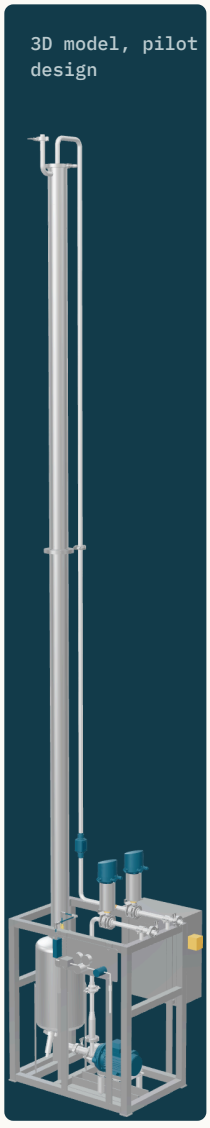
Nothing to replace
No membranes, no vacuum pump, no heater. Running cost is CO_2: 0.17–0.31 kg per hl.

Four connections and a drain
Water, CO_2, air, power. Vent to outside. A floor drain.

How it works

1. **Water falls** through a tall packed column at a fixed, regulated flow.
2. **CO_2 rises** against it and carries the dissolved oxygen out through the vent.
3. **The sump and pump** deliver the deaerated water to your buffer tank, up to 1.0 barg top pressure.
4. **The PLC** runs production and CIP, and brings the skid to a safe stop.

Stainless 304L and 316L, EPDM seals.
Footprint 0.9 × 0.9 m, height 5.1 m.


3D model, pilot design

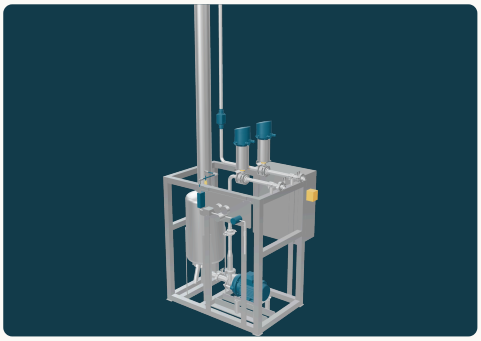
Specification

Water flow	5.4 hl/h fixed (4.98–5.82 hl/h)
O_2 in, air-saturated	≈ 8–11 ppm (30–10 °C)
O_2 out	< 20 ppb, less if needed
CO_2 consumption	≈ 7.6 NL/min at 30 °C, 13.9 NL/min at 10 °C (≈ 1.65 kg/h)
CO_2 per hl of water	≈ 85–155 NL/hl (≈ 0.17–0.31 kg/hl)
Delivery	Buffer tank up to 1.0 barg top pressure at 2 m level
CIP	Up to 80 °C, NaOH or acid up to 2 %
Materials	Stainless 304L and 316L, EPDM seals
Footprint	≈ 0.9 × 0.9 m
Height	≈ 5.1 m
Weight	≈ 155 kg empty, ≈ 185 kg running

Requirements

Water	2.4–6 barg, 10–30 °C
CO_2	Food grade, cylinder or bulk line
Air	6 bar, clean, dry, oil-free
Power	3 × 400 V + N + PE, 50 Hz
Site	Floor drain, vent to outside, column bracing

Design values for the pilot system. Every figure comes from the sizing and simulation files of the design, not from field data.



Why a CO_2 column

Atmospheric pressure

No vacuum, no heat. The column works at room pressure and water temperature; the oxygen leaves with the gas through the vent.

Low energy per hl

One 0.55 kW pump is the only drive. The stripping itself costs nothing but CO_2: 0.17–0.31 kg per hl.

No consumables

Nothing to replace or re-order. The only thing consumed is CO_2, and there is always CO_2 in a brewery.

Small footprint

0.9 × 0.9 m of floor, 5.1 m of height. It stands next to the buffer tank it fills.

What would it take for deaerated water to fit your brewery?

Send the water temperature, the tank it should fill and the oxygen you need. A clear answer within two working days, and a quotation if it fits.

Quote form
novobrewsolutions.com/quote
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