

Description

Oxygen in soft drinks affects the preservability and the taste. Therefore, it is important to use an optimally deaerated water for the production of soft drinks. The GEA Diessel 2-stage water deaerating system type **DIOX2-TE** achieves an excellent value of residual oxygen and is thus especially suitable for this and some further applications.

Special features:

- residual oxygen content ≤ 0.1 mg of O_2/l
- low operating expenses
- low CO_2 consumption (0.2 - 0.5 g/l)
- no sealing water consumption
- assembled ready to work, i.e. low assembly costs
- deliverable flow rates of 5,000 - 40,000 l/h

Option:

- control of the residual oxygen

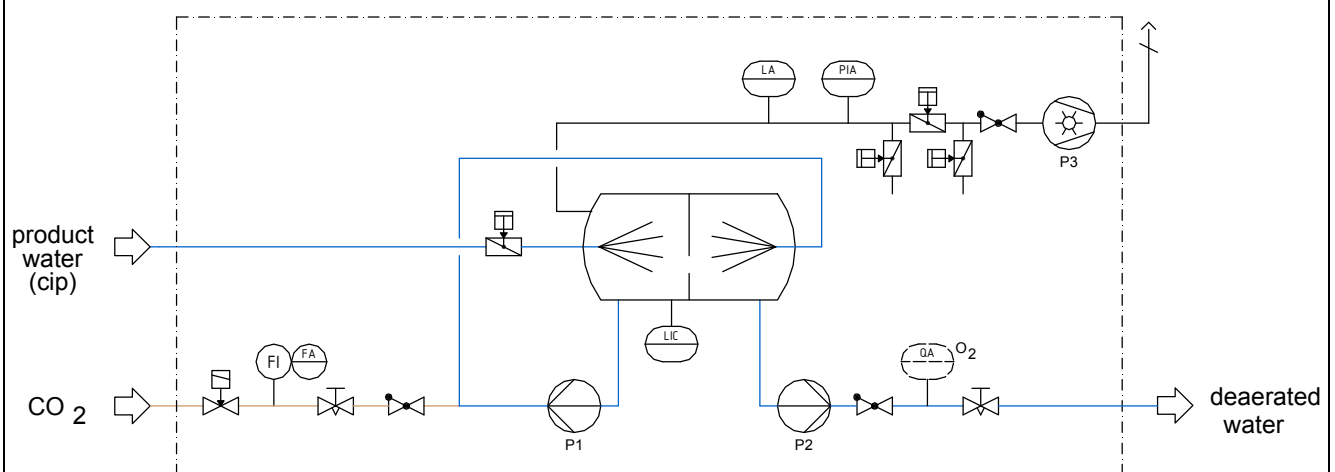
In the first stage in the lower part of the tank the largest part of oxygen is extracted by pure vacuum deaeration. Being mixed with CO_2 , the predeaerated water is carried into the second stage. CO_2 increases the release of oxygen. The CO_2 -oxygen mixture is also sucked off by the aid of the vacuum pump (P3) via the first stage. By a discharge pump (P2) the deaerated water is carried to the consumer.

The vacuum is generated by means of a dry-running rotary piston pump.

The operating expenses are considerably reduced due to the fact that no sealing water is required. Detectors for pressure (PIA), level (LA), and possibly oxygen (QIA) monitor the system for its proper function.

The system is cleaned via the product path. In addition, an optimum cleaning effect is obtained by the spray balls in the deaerating tank.

Flow diagram



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Water deaerating system

DIOX2-TE

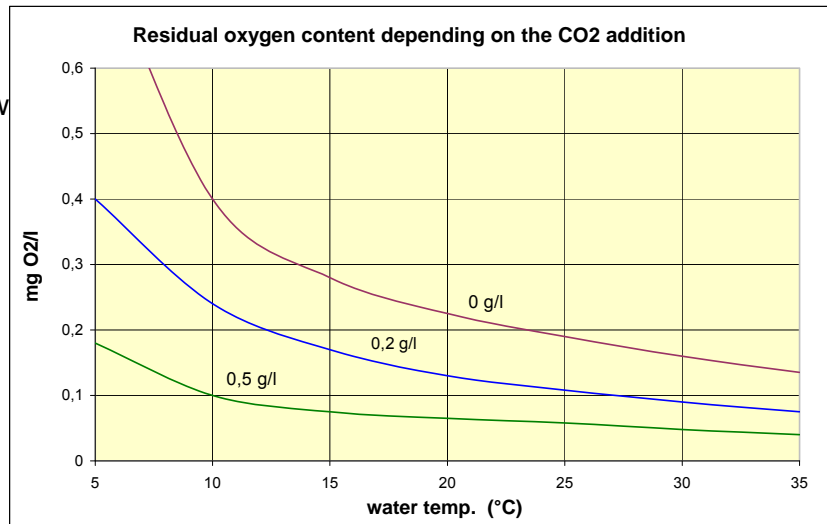
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Technical data

Materials: 1.4301/EPDM
Flow rate: see table below
Water admission pressure: 4 bar
CO₂ admission pressure: 6 bar
Control air pressure: 6 - 8 bar
CO₂ consumption: 0.2 - 0.5 g/l
Required CO₂ quality: ≥ 99.98 % purity
Residual oxygen content: see diagram



Flow rate	50	100	200	300	400	h/h
Length	2,000	2,000	2,000	2,500	2,500	mm
Width	1,200	1,200	1,200	1,600	1,600	mm
Height	2,800	2,800	3,000	3,200	3,500	mm
Water input/output	40	50	65	80	80	DN
Electric connection	6	9	16.5	20.5	30	kW
Max. weight, approx.	1,800	1,800	1,800	2,200	2,200	kg