VINVENTIONS

WQS
Nomasense CO_2 C2000

Oenological decision-making tool



200 mg/L of CO_2 too much or too little: two different wines.

The Nomasense CO_2 C2000 measures this parameter in ~30 seconds, directly in the cellar, in the bottle or in the tank, with the analytical precision required for oenological adjustment.

PREMIUM FEATURES INCLUDE:

- Result in ~30 seconds
- Precision ±50 mg/L
- Common CO_2 + O_2 platform
- Cloud traceability
- No moving parts

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- Simple to use
- Validated over a range of 0 to 2,500 mg/L
- Same tablet as the Nomasense O_2 C300, scalable use
- Enology Portal, automatic saving, industry benchmark (> 130,000 WQS measurements)
- Sensors replaceable on-site < €50

CO_2 and O_2 cannot be managed independently.

Each mg/L of dissolved O_2 leads to a loss of ~10% of CO_2. Managing one without measuring the other means correcting blind.
The CO_2 C2000 + O_2 C300 platform is designed exactly for that.

Scalable use: buy the CO_2 C2000 alone and add the Nomasense O_2 C300 later, or integrate the CO_2 C2000 into your existing O_2 C300.
A single scalable device to manage all bottling gases.

Nomasense CO_2 C2000	
Precision	±50 mg/L
Measurement range	0 to 2,500 mg/L
Temperature range	0 °C to 40 °C
Measurement time	~30 seconds
Method	Original manometric, triple correction
Matrices tested	White, rosé, and red wines
Compatibility	Bottle, tank, bag-in-box, fixed and mobile bottling lines
Platform	Shared with Nomasense O_2 C300, scalable use
Sensors	Replaceable on-site < €50



MEASUREMENT PRINCIPLE

When the wine is agitated in a closed reservoir, dissolved CO_2 equilibrates between the liquid and gas phases, generating a measurable pressure increase. The device simultaneously corrects for differential pressure, atmospheric pressure, and temperature via a PT100 probe.

Equations validated under R (multiple linear regression, $R^2 > 0.99$) on white, rosé, and red wines.

PROCEDURE IN ~30 SECONDS

Filling the reservoir; automatic volume adjustment by overflow tube; sealed closure; 10 seconds of agitation; connection to the tablet: the result is displayed immediately in mg/L and automatically saved in the Enology Portal.

No pump, no moving parts

COMPETITIVE POSITIONING

Carbodoseur: widespread but limited precision (±150 mg/L).

High-end electronic solutions: precise but expensive (~€10,000 and above) and complex to use.

Nomasense CO_2 C2000: analytical precision (±50 mg/L) at €3,500, no training required, no critical consumables.

BENEFITS & USE CASES

- Precise adjustment of CO_2 concentration before bottling
- Identification of critical CO_2 loss stages throughout the run
- Monitoring of profile drift in correlation with O_2 measurements
- Validation of circuit inerting efficiency
- Measurement in bottle, tank, bag-in-box, fixed and mobile lines
- CO_2 + O_2 management on a single screen, a single traceability interface
- Enology Portal: history, industry benchmark (> 130,000 WQS measurements), exports

TARGET MARKET

- Wineries, estates, cooperatives
- Consulting oenologists and analytical laboratories
- Fixed and mobile bottling lines (négociant, contract bottling)