

Capture and reuse
of fermentative CO₂ in the winery

Circular Economy

CO2 capture and treatment system

CO2 Capture Network



- Study and sizing of CO2 collection networks based on tank room layouts
- Supply of PVC or stainless-steel CO2 collection systems to ensure secure CO2 capture
- Installation or assistance with the setup of the PVC or stainless-steel collection network
- CO2 collection system analysis and flow rate measurement

CO2 Capture Safety



CO2
Collect

- Equipment made of PVC or stainless steel to ensure safe and reliable fermentation CO2 capture, with integrated pressure/depression management
- Custom connections: MACON, DIN, SMS
- Equipment to be connected via a flexible hose to the central CO2 collection network manifold

Analysis, Purification and Compression



Micro
CO₂ Box

CO₂ Box

8 to 12 bar 40 to 200 bar

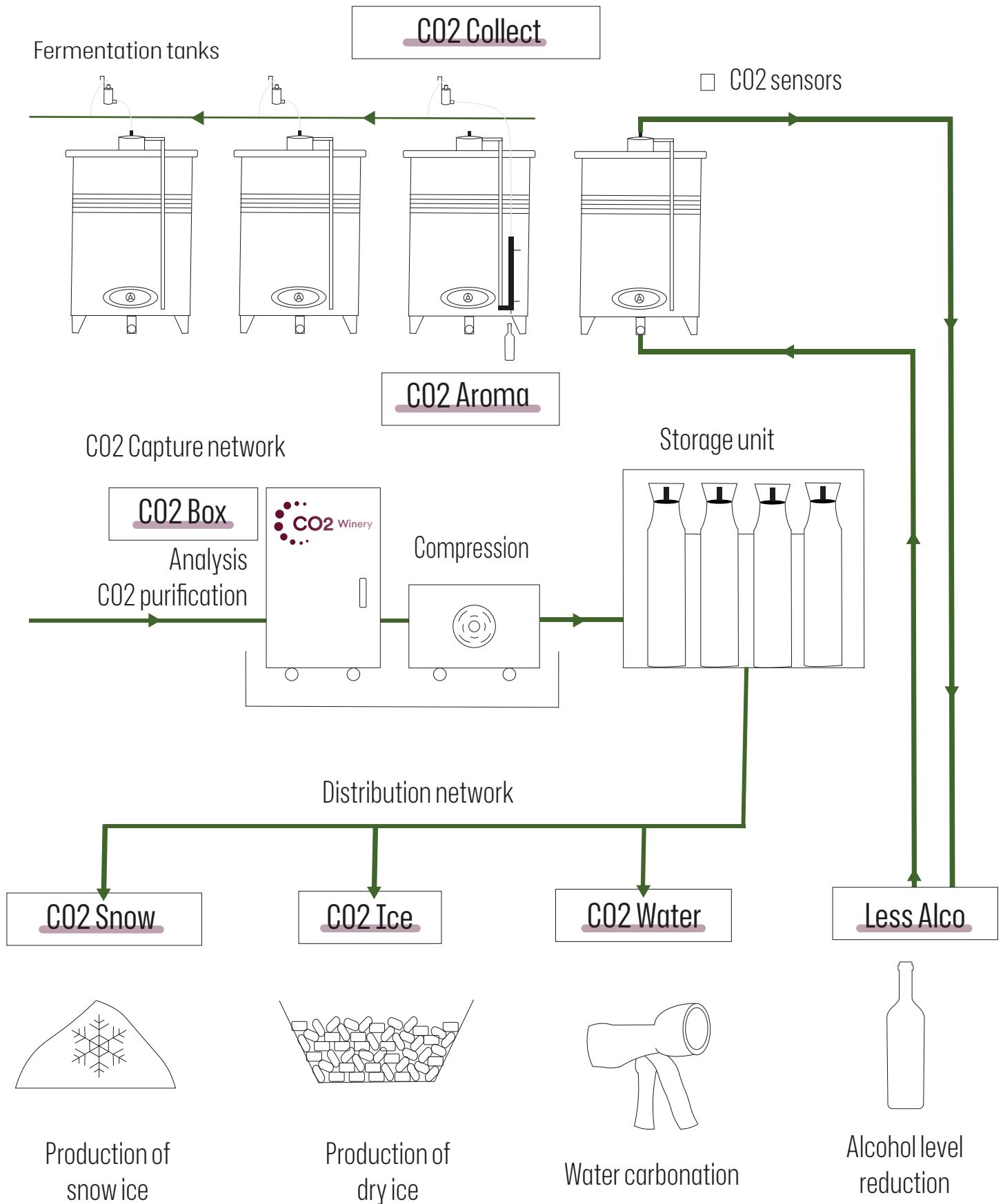
- CO2 quality analysis unit
- CO2 purification (drying, bacterial filtration, etc.)
- Compression ranging from 20 to 200 bar, in either gas or liquid form
- Automated system with remote monitoring
- Ambient sensors for CO2, temperature and humidity, with alarm

Storage



- Liquid or gas CO2 storage unit in bottles, racks, or tanks (8, 20, 40, or 200 bar)
- Bottle unit: 6 (200kg) or 12 (400kg)
- Optional distribution unit to inject stored CO2 into the CO2 network

CO2 CAPTURE AND RECOVERY



The CO2 can be reused in the winery in a number of ways, depending on the objectives, or resold.

CO2 recovery equipment

CO2 Aroma



- Stainless steel equipment to recover aromas from fermentative CO2
- Custom sizing based on each tank's capacity
- Compatible with CO2 Collect equipment
- Positioned at the top or bottom of the tank when an agitator is present

CO2 Snow



- Carbon snow production system :
- Inerting presses and tanks
- Harvest cooling

CO2 Ice



- Dry ice (pellets) production system :
- Inerting presses and tanks
- Pre-fermentation maceration
- Harvest cooling
- Harvest protection

CO2 Water



- Fixed or mobile unit on a water supply network
- Water gasification up to 2g/L
- Increased rinsing capacity with water acidification: pH close to 5, enhanced wetting power
- Achieves up to 3x savings in time and water for caustic soda-cleaned tanks
- Limestone dissolution in pipes

Less Alco



- System for re-injecting fermentation CO2 during the vinification phase to reduce alcohol content by 0.5 to 2 degrees
- Ongoing R&D following successful trials with the ISVV (Institute of Vine and Wine Sciences) and practical testing at a winery in 2023
- Seeking “ambassador” clients for testing during upcoming harvests



Benefits

1

**Safety and comfort
at work**

2

**Reduced CO2
purchase costs**

3

**Reduced carbon
footprint**

4

**Reduced water
consumption**

5

**Improved winemaking
processes**



Our equipment recovers your CO2 !

They support us

DEMEA
INVEST

bpifrance

agronov
PÔLE D'INNOVATION EN AGROÉCOLOGIE

innovin
COGNAC+
BORDEAUX
...NOUVELLE AQUITAINE


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