

# SPARKLING PROCESS PILOT PLANT Mod. SMT-M/EV

## INTRODUCTION

Sparkling wines are wines enriched with carbon dioxide. This enrichment can be obtained by a refermentation or by a direct addition of this gas, in artificial sparkling wines.

One of the commonest methods is Charmat method that uses pressure-resisting fermentation tanks (autoclaves) where sugar and yeasts are added to the wine after being refrigerated. After this refermentation process that can last some days up to some months, wine is refrigerated, filtered and bottled without any pressure loss.



## TRAINING PROGRAM

**This unit enables to deepen the following issues:**

- Check of end product versus the following operating parameters:
  - operating pressure
  - refermentation times
- End product analysis:
  - organoleptic examination
  - alcoholic strength
  - total dry extract
  - sulphur dioxide
  - acidity
  - reducing sugars
  - wine stability test
  - determination of carbon dioxide
- Determining the best conditions for sparkling process

- Pressure reduce for N<sub>2</sub>
- Switchboard with protection degree IP55 complying with EC standards and including a differential circuit breaker and a schematic diagram of the plant
- Emergency button

**Dimensions:** 2500 × 1100 × 1800 mm

**Weight:** 500 kg

## TECHNICAL SPECIFICATION

- Autoclave supporting framework of AISI 304 stainless steel
- Jacketed autoclave of AISI 304 stainless steel for the sparkling process, insulation of expanded polyurethane plated with sheet steel, with maximum pressure of 6 bar and capacity of 1000 l
- Motor reducer for autoclave agitator, P = 1 kW
- Agitator for autoclave of AISI 304 stainless steel
- Safety valve of stainless steel AISI 3004
- Electric resistor, P = 4 kW
- Drain valve of AISI 316 stainless steel, DN 25
- Wine filling valve of AISI 316 stainless steel, DN 25
- Bourdon pressure gauge, range of 0 to 6 bar
- Dial thermometer
- Pt100 thermoresistance with sheath of AISI 316 stainless steel, for measuring the temperature of sparkling wine
- ON-OFF electronic regulator of the temperature of sparkling wine
- Solenoid quick on-off valve of glycol solution
- Connecting lines and valves of AISI 304 and 316 stainless steel

### SUITABLE FOR PROCESSING:

MILK (table top)	MILK (on castors)	FRUIT	TOMATO	CITRUS	OLIVE	OLEAGINOUS SEED	GRAPE	BREWING	SEAFOOD	LIQUEURS
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### REQUIRED

#### UTILITIES (PROVIDED BY THE CUSTOMER)

- Power supply: 400 Vac 50 Hz three-phase - 5 kVA (Other voltage and frequency on request)
- Water: occasional consumption
- Nitrogen cylinder
- Using the cooling system of pilot plant a mod. FRM/EV

#### ACCESSORIES (NOT INCLUDED)

- Unit for the production of ice water mod. URF/EV, if plant mod. FRM/EV is not available
- Sterilizing-grade cartridge filter, 0,45 μ with housing of AISI 304 stainless steel

### SUPPLIED WITH

**THEORETICAL – PRACTICAL –  
EXPERIMENTAL HANDBOOK**

