



OIV method for the determination of the Alcoholic Strength and Volatile Acidity in wines, musts and spirits.

INTRODUCTION

This application note describes the OIV official method for the determination of the alcoholic strength by volume in wines, musts and spirits and of the volatile acidity, particularly adapted for wines, liqueurs, beers, perfumes, alcoholic solution in general and spirits.

The DEE from Gibertini is a quick operating automatic instrument taking advantage of a fully new heating-system and with an automatic stop of cooling water flow at the end of the distillation. The collection of the distillate is blocked automatically on reaching the amount established by means of the precision electronic balance.

DISTILLATION PROCESS

Wine Distillation: 100 ml in 3-4 minutes – 200 ml in 5-6 minutes

The current regulation requires that the distilling unit satisfies the following test: distil 5 times in succession a water-alcohol mixture with an alcoholic strength of 10% vol. After the last distillation, the distillate should present an alcoholic strength of almost 9,9%vol, in other words during each distillation the instrument does not lose a quantity of alcohol higher than 0.02%vol.

Volatile acidity in wine: 250 ml in 8 minutes starting from 20 ml (with VADE steam generator)

For the volatile acidity it respects the three points provided by the same Regulation:

- The steam of water produced by the generator must be CO₂ free Distil 20 ml water collecting 250 ml distillate, adding 0,1 ml NaOH 0.1 N and 2 drops of phenolphthalein 1% in alcohol: the colour must remain stable pink for at least 10 seconds.
- 99,5% of acetic acid contained in a solution 0,1 M it must be found in distillate. Distil 20 ml acetic acid 0,1 M. Collect 250 ml distillate and titrate with at least 19,9 ml NaOH 0.1 N.
- Maximum 0,5% of a solution of lactic acid 1 M is found in the distillate. Distil 20 ml of a solution of lactic acid 1M, collect 250 ml of distillate and titrate with maximum 1,0 ml NaOH 0,1 N.

Distillation of spirits:

The current regulation requires that the distilling unit satisfies the following test: distilling 200 ml (or 100 ml) of a hydroalcoholic solution at 50% vol and collecting 200 ml (or 100 ml) of distillate the amount of alcohol lost must not be more than 0.1% vol.

Distillation of wine dregs

STANDARD EQUIPMENT

- The DEE from Gibertini is a quick operating automatic instrument taking advantage of a fully new heating-system and with an automatic stop of cooling water flow at the end of the distillation. The collection of the distillate is blocked automatically on reaching the amount established by means of the precision electronic balance.
- Three 100 ml volumetric flasks, one 200 ml volumetric flask, two 300 ml conical flasks, chemical products kit, pipettes, tubes, screws, clamps for the connection of supply and discharge water, etc.

TECHNICAL SPECIFICATIONS

- Power: 220V (-15%/+10%) 15A – Dimensions: W280xD460xH1000 mm – Net weight: 26,5 kg Water requirements: Max 18°C – Flow rate minimum 5 l/min. – Minimum pressure 2 bar

