

**Hazemeter Vos 4010
with optional hood for extra tall bottles**

Technical specifications

Measuring range:

Low range 0-10 EBC : 0,01 EBC

High range 9-100 EBC : 0,1 EBC

Unstable signal at:

>6% variation in signal during measurement

Scales: selectable EBC, ASBC and Helm units

Voltage: 230 V, 50 Hz

115 V, 60 Hz

Lamp: Halogen 12 V, 20W

Weight: 7,3 KG

Spare Parts: ● Cuvette
● Cuvette with cap
● Bottle holders of different sizes
● Lamp

Optional: ● hood for extra tall bottles (marked in drawing)
● greenfilter
● white filter

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Hazemeter VOS 4010



*the renewed Hazemeter
by Vos instrumenten*

Vos 4010 is the renewed Hazemeter by Vos instrumenten



the 4010 series is now possible within one chain of breweries. Turbidity is a complex phenomenon. Turbidity is defined as "expression of the optical property that causes light to be scattered and absorbed rather than transmitted in straight lines through the sample." In other words, turbidity is the measurement of relative sample clarity. Turbidity is measured by comparison to standard solutions eg. Formazin.

In practice, turbidity measurement is done in cuvettes. However, the measurement can also be executed in bottles of various sizes. Different bottle holders can easily cover the most commonly used bottle diameters.

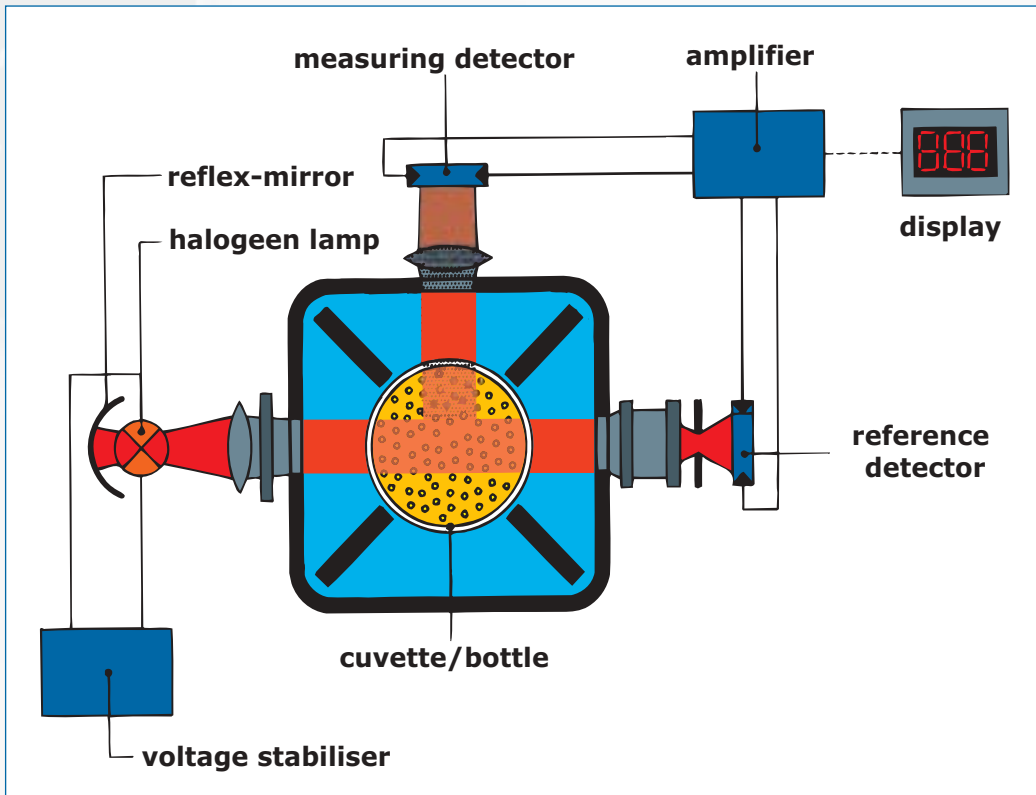
Introduction

About 25 years ago it was Vos instrumenten who developed the VOS 4000 Hazemeter. This apparatus was the widely recognized reference for measuring turbidity in beer. Distributed all over the world, many well-established breweries have been using this VOS 4000 Hazemeter.

The results of the turbidity measurements are comparable no matter using the VOS 4000 or VOS 4010. This is a major advantage, since a gradual substitution of the 4000 by

Advantages

- Easy four-point calibration
- Large, well-readable display
- Display readings in EBC, ASBC or Helm units
- Rugged, water resistant housing
- Tall hood for measurement of bottled beverages
- RS 232 and printer interface
- Adaptable to supply voltages 115 or 230 V AC
- Use of different optical filters possible



Mode of action

The Vos 4010 Hazemeter makes use of the scattered light principle. Scattered light caused by haze particles is measured at an angle of 90° . A light source with red filter is used, operating at a light wavelength of $650 \pm 30 \text{ nm}$ (recommended by MEBAK!). Other wavelength filters are optional and easily exchangeable in the apparatus.