



reliable delivery of water vapor
isotope standards over a wide
range of concentrations?

yes, we can

Water Vapor Isotope Standard Source

LGR's Water Vapor Isotope Standard Source (WVSS) provides a controllable flow of humid air with known isotope values for ^2H and ^{18}O over a range of H_2O concentrations. The WVSS is used to automatically characterize the operation of the Water Vapor Isotope Analyzer (WVIA) in real time and without user intervention.

LGR's WVIA controls the WVSS which provides quantitative, traceable reference samples at user-determined intervals. Together the WVIA and WVSS provide uninterrupted, automated isotopic water vapor measurements in a dual-inlet mode of operation, the most accurate and reliable method of quantifying isotope ratios.

The WVSS operates on the principal of quantitative evaporation. A user-supplied liquid water sample of known isotopic content is used as a source which, under normal circumstances, will provide reliable water vapor calibrations for weeks or months. If desired, the WVSS and WVIA can also be used to measure liquid water samples continuously.

Features and Benefits

- Provides water vapor isotope standards over a wide continuous range of mole fractions
- User selectable water vapor mole fractions
- Fully automated and controlled by LGR's Water Vapor Isotope Analyzer
- Provides standardization of LGR's WVIA without operator interaction
- Water vapor isotope standards generated in real time
- May be used with LGR's WVIA for continuous measurements of isotope ratios in liquid water samples

Performance Specifications

Water Vapor Concentration Range:

Normal Range: 3000 – 30,000 ppm H_2O
Extended Range: 500 – 30,000 ppm H_2O

Power Requirements:

115/230 VAC, 50/60Hz
Average in normal operation: 30 watts
Idle: 10 watts
Full operation: 300 watts

Dimensions:

Normal Range: 19" x 17" x 10½"
Extended Range: 19" x 23" x 10½"
Both fit in a standard rack systems

Weight:

Normal Range: 60 pounds (27 kg)
Extended Range: 63 pounds (29 kg)



Ordering Information

Normal Range: Part Number 908-0004-9002
Extended Range: Part Number 908-0004-9003