LGR’s Water Vapor Isotope Standard Source (WVISS) provides a controllable flow of humid air with known isotope values for $^2$H and $^{18}$O over a range of H$_2$O concentrations. The WVISS 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 WVISS which provides quantitative, traceable reference samples at user-determined intervals. Together the WVIA and WVISS 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 WVISS 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 WVISS 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$_2$O
- Extended Range: 500 – 30,000 ppm H$_2$O

**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 WVISS
Extended Range: Part Number WVISS-EXT