Applications:

- Studying hygroscopicity of powders, fibers and solids
- Kinetics of water sorption and desorption
- Water induced morphology changes
- Food shelf-life prediction studies
- TEWL/Transepidermal Water Loss
- MVTR/ Moisture Vapor Transmission Rate determination
- Calculation of Diffusion Coefficients
- Sorption Modeling
- Moisture Compatibility
- Water Activity Measurements

DVS Application Notes and Case Studies >

Materials Studied:

- Pharmaceuticals: powders, tablets, API's and excipient materials
- Food: powders, processed food, biscuits
- Natural materials: grains/seed, wood
- Building materials: aggregates, cement, ceramics
- Personal care products: cosmetics, hair care, contact lenses
- Packaging materials: paper, plastics

Temperature range 20–40 °C (standard)	Maximum sample mass (low/high mass instrument) 1g/5 g
Mass change (low/high mass instrument) +/- 150 mg/1.0 g	Stability (24 hours @ 25 ºC and 0% RH) (low/high mass instrument) <5 µg/<50 µg
Mass resolution (low/high mass instrument) +/- 0.1µg/1.0µg	Humidity Range 0–98%RH
Temperature stability +/- 0.2 ºC	Gas flow rate 200 sccm
Sample chamber 40mm W x 50mm D x 50mm H	Reservoir volume 100 ml reservoir capacity
Heating system Peltier + Cartridges	Weight: 22 kg
Size approximately 26cm W x 39cm D x 47cm H	Inlet pressure: 2 to 4 Bar
Carrier gas: Air or N^2	Computer interface TCP/IP and USB/RS232