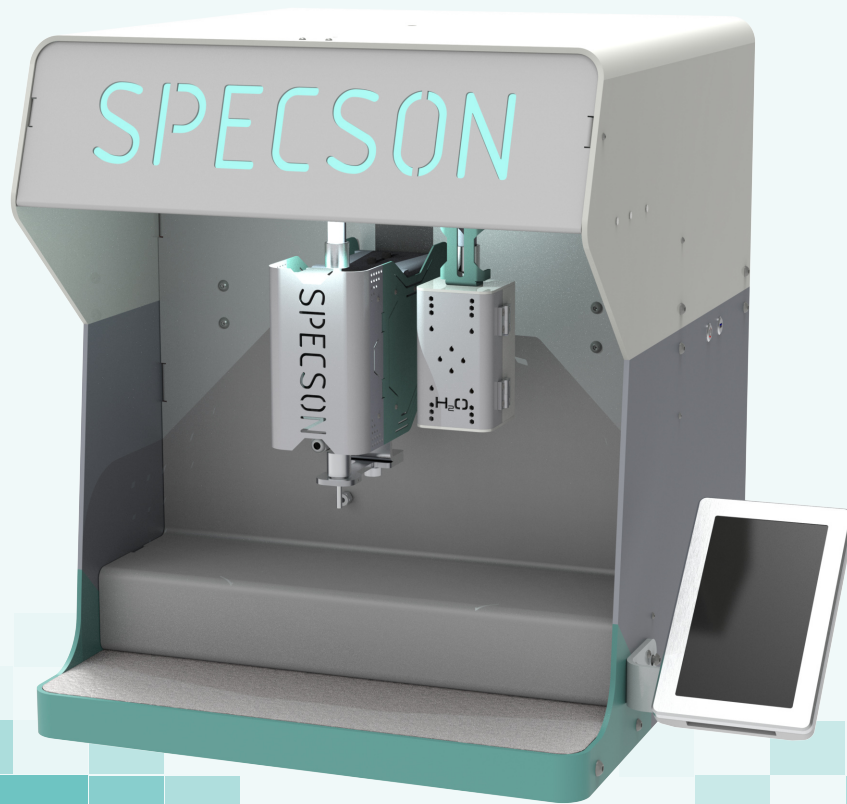


CO₂ Capture And Utilization Equipment



SPECSON CCSU-1, Specialized for CO₂ Capture and Utilization

CCSU-1 is a lab scale and compact equipment designed for Industrial R&D and University research groups. This pre-calibrated system provides users the followings:

- Measuring CO₂ capture capacity (mmol/g sorbent) of a powder sample placed in a tubular reactor at different temperatures, pressures (up to ~2.6 BarG), CO₂ concentrations, flow rates and relative humidity (0-80 RH).
- Analysis of dynamic CO₂ breakthrough curves
- Performance evaluation of supported catalyst for different reactions. For example: Dry and Steam Reforming of Methane, Reverse Water Gas Shift, CO oxidation, etc.
- Time-on-Stream type experiments for longevity test.
- CO₂-Temperature Programmed Desorption

This smart unit is fully automated and all the electronics are controlled and monitored by Specson WorkFlow Manager unattended. You can also manually set mass flow controllers and furnace temperature up to ~900°C with a linear ramping via 10.1-inch Touchscreen. It is equipped with 3 Vögtlin MFCs, NDIR CO₂ and CH₄ Edinburgh NDIR sensors, SUTO RH Sensor in default.

SPECSON also offers a variety of custom designed and fully automated testing units. You can also upgrade this system to CCSU-1Pro with real-time Mass Spec. Analyzer (SRS RGA 200 and Pfeiffer Hicube80) for more comprehensive testing capability.