

# Highly Accurate and Repeatable CEM Evaporation System

Controlled Evaporation Mixing Controller by Process Solutions Corp.

## What is a CEM Controller?

A CEM Controller uses flow meters, flow controllers, a vaporizer, and a CEM, or controlled evaporative mixer, to atomize a liquid. The liquid is then mixed with a carrier gas, heated, and transformed into vapor phase, which can then be used for precise, low flow vapor applications.

## Calibration of Gas Chromatographs, Mass Spectrometers, and Gas Sensors

Gas phase concentrations can be produced as desired through the combination of LIQUI-FLOW mass flow controllers and a CEM. This is useful for calibration of Mass Spectrometers and Gas Chromatographs because the reference stream from the CEM is both highly reproducible and highly accurate due to the direct action of the mass flow controllers.

## Defined Humidification of Gases

The CEM is an ideal solution for accurately adjusting dew and moisture. CEMs offer a large dynamic range and high accuracy, which allows it to control moisture level with great flexibility, (from only a few ppm up to virtually 100%) while maintaining a very high stability in dew point. Full functionality is retained with operating pressures as high as 100 bar.

## Replacement for Traditional Bubbler Systems

A CEM, combined with a liquid mass flow meter, can be used to control the exact quantity of liquid to be vaporized and mixed with carrier gas, to produce your exact concentration. The touch screen HMI offers easy control of the instrumentation and virtually any concentration can be produced in a matter of seconds with high accuracy and repeatability.

## Additional Uses

- analyzers with reference gas vapor concentrations
- analyzers with reference H<sub>2</sub>O vapor concentrations



Learn more on our website: [www.psctexas.com/CEM-System](http://www.psctexas.com/CEM-System)