

For the most accurate sensor screening and research, very precise gas blends are essential to guarantee the desired consistency of quality in the end products as well as the highest yield. Environics gas mixing and gas delivery systems are used extensively by sensor development companies as well as sensor manufacturers. The Environics systems are an efficient and versatile piece of laboratory equipment.

Our three most popular mixing systems used by sensor developers and manufacturers are:

- The Series 3000 Gas on Demand system is a [gas mixing and gas delivery system](#) is usually used to dynamically produces and delivery mixes containing two or three gases, though more complex mixtures can also be created. The main controls of the system are HMI (Human Machine Interface); color touch screen and PLC combined.
- The [Series 2000](#) which dynamically produces complex mixes containing up to eight (8) individual component gases in a balance gas. User interface includes a backlit 80 character by 25 line liquid-crystal display and membrane keypad.
- The [Series 4000](#) is a multi-component gas mixing system that automatically mixes up to three (3) individual gases in a balance gas. The user interface is a Microsoft® Windows application that communicates with the Environics system via an RS232 serial interface.

**Accuracy:** Our gas mixing technology is based on very precise control of thermal mass flow controllers. Normally, thermal mass flow controllers offer an accuracy +/- 1% of full-scale flow. However, when combined with Environics computerization and calibration, this accuracy specification is improved to **+/- 1% of setpoint**. The Full-scale error vs. Setpoint error document shows the 10x improvement in



accuracy of a thermal mass flow controller when using Environics controlling technology.

**Repeatability:** Our systems have a repeatability of **+/-0.05% of full scale**.

Both accuracy and consistency are dependent on total flow rate.

**Traceability:** The instruments' mass flow controllers are factory calibrated using a computer controlled primary flow standard traceable to the United States' National Institute of Standards and Technology (NIST).

**Cost Savings and Increased Yield:** Environics systems allow you to utilize economical pure gases in place of more expensive pre-mixed blends. The precision and accuracy of the blend will result in the highest possible manufacturing yield of sensors.

**Optional Alarms:** An optional visual and/or audible alarm can be installed to alert the operator of specific fault conditions.

**Other Options:** We have thousands of systems in the field and have developed an extensive library of applications and solutions to meet our customers' needs. Common options include: an RS-232 Serial Data Interface, Humidification, Permeation Ovens, Purge Circuit, Status Board, Heated Gas Handling System, and Extra Component Gas Inlet Ports.



Scan or [click here](#) to learn more

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