

Percival Scientific - Chambers for the Environmental Control Industry

Percival Scientific, Inc. continues to set the standard of excellence for the environmental control industry, producing over 75 different models of plant growth chambers, biological incubators and special application chambers.

To ensure each chamber is of the highest quality and dependability, all Percival units are handcrafted and performance tested. Their product line has features not offered by other companies, and are the preferred choice of universities, colleges, government institutions and private firms both domestically and internationally. Percival's manufacturing facility encompasses all engineering, design, fabrication

and construction of the product line, allowing Percival Scientific to maintain complete control of the manufacturing process. This dedication ensures customers the highest quality product on which they have grown to depend.

Percival Scientific manufactures an array of custom chambers such as the GR-36L (shown) that are specifically designed for applications such as seed germination, seed storage and full plant production.



Eldridge Flow Meters - for natural gas submetering

Eldridge Products, Inc. (EPI) has been an industry leader for over 20 years, specializing in the manufacture of thermal mass flowmeters and other related technology for gas flow meter measurement and gas flow control.

Natural gas is a fossil fuel that is usually measured in BTUs and is composed of a mixture of hydrocarbon gases, primarily methane, ethane and propane. The remaining gases and their percentage of the overall composition can vary greatly. For example, the trace levels of H₂S in the mixture sometimes lead to the natural gas being labeled as "sweet" or "sour".

The utility company's meter at the building exterior measures the consumed volume in hundreds of cubic feet (CCF), however the consumer's bill normally measures the consumption in therms, where one therm is equal to 100,000 BTUs. The energy

value of the gas in BTU's is normally reliable, provided the utility company measures this value throughout the year and integrates it over time. However, the gas density due to pressure makes up the largest portion of the billing or thermal correction, and this is the most likely area for billing mistakes from the local gas utility. Depending on the total monthly usage, these discrepancies can be significant, resulting in artificially and inaccurately high overall operating costs.

Submetering the natural gas usage at strategically selected points in a facility shows how much gas is actually used at each metered location or work area and provides an overall total for the facility. This total is compared to the utility's billing total as a means of verifying or disputing the charges. The key element in efficient submetering is a flowmeter that measures the natural gas flow accurately without duplicating the utility company's need for complicated and potentially erroneous corrections based on actual gas temperature and pressure. Thermal gas mass flowmeters, such as the Master-Touch™ series manufactured by Eldridge Products, Inc., are ideally suited to this purpose.



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Horiba PG-250 Portable Multi-Gas Analyzer - Up to 5 Components

The number of applications for gas analyzers (for example, studying global environmental problems resulting from combustion exhaust, research on energy conservation, and research on catalyst and control gas concentrations in process gas) have been steadily growing.

The new **Horiba PG-250** is a highly reliable and versatile gas analyzer for compliance testing of NO_x, SO₂, CO, CO₂, and O₂, housed in a single lightweight and fully portable case. Unlike other portable gas analyzers that rely upon electrochemical sensors, the Horiba PG-250 utilizes the same measurement principles as a permanently installed CEMS. These include NDIR (pneumatic) for CO and SO₂; NDIR (pyrosensor) for CO₂; Chemiluminescence (crossflow modulation)



for NO_x; and Galvanic Cell for O₂ measurements. More importantly, the Horiba PG-250 meets or exceeds the

regulatory requirements established by agencies such as the EPA in the U.S. for portable or backup continuous emission monitoring systems.

The PG-250 is capable of intermittent or continuous measurement of five components simultaneously. The compact and lightweight case, with a built-in carrying handle, is as easy to transport as a suitcase. Thus, the PG-250 is ideal for moving between several stacks at a single plant or for carrying across the country to measure clusters of stack emissions at multiple locations.

Features:

- Built-in Sampling Unit
- Simple to operate, easy to read
- Multiple screens: Warm up, measurement, calibration, parameter setting, etc.
- Optional electronic cooler

Applications:

- Boilers
- Gas Turbines
- Refineries
- Waste incinerators
- Electric Utilities
- CEMS backup
- Emissions testing
- Combustion efficiency
- Pollution control systems
- Relative accuracy test audits

Safety Inc - Parent company of ETA Associates

Don't forget to visit the website of Safety Inc, at www.ESafetyInc.com, the parent company of ETA Associates and home of the safety experts. You will find the PPE equipment and industrial hygiene instruments that suit your company's needs within our huge selection. We carry high quality equipment and supplies and can provide you with top-of-the-line technical support and assistance.

Whether you are looking for industrial safety gear or lab safety supplies, we can help you determine which products are a good fit with your work site and employees. You've come to the right place to find **Uvex safety glasses**, **H1N1/seasonal flu protective kits**, **Draeger tubes**, **calibration gases**, and more. We also have service technicians who can **calibrate or repair** many types portable instruments.

Don't hesitate to contact us if you can't find what you are looking for, we have many more items available than we can possibly showcase. For more information regarding safety in the workplace and our products please browse our products or read our informational articles. Call 800-462-1103 or email sales@ESafetyInc.com.



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