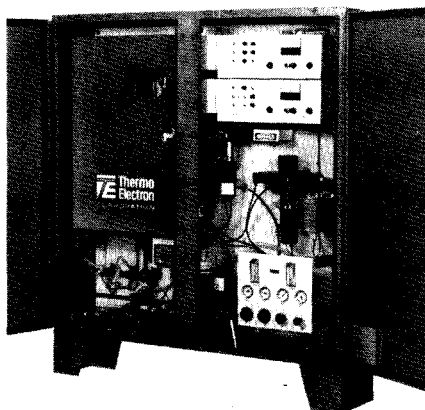


ES&T PRODUCTS

Acrylonitrile/benzene analyzer

The portable instrument can detect acrylonitrile or benzene to less than 0.5 ppm in the presence of common industrial contaminants. The analyzer has a continuous direct readout of total organic vapor. Quantitative analysis is by gas chromatography. Century Systems **101**



H₂S/SO₂ monitor

This solid-state monitoring system operates on the company's patented pulsed fluorescence principle. The system finds application in ground-level air monitoring, and in stack emission monitoring. Thermo Electron **102**

Process pumps

Designed for high-pressure metering of corrosive and/or toxic compounds such as acrylonitrile, vinyl chloride, and liquid chlorine. Diaphragm pumps with heads designed for pressures up to 10 000 psi are equipped with 20 kW drive motors; horsepower ratings of up to 250 are available. American Lewa **103**

Combustion optimizer

This electronic device continuously monitors boiler exhaust gases to maintain the air-fuel ratio at optimum for combustion without fuel waste. Robert H. Wager Co. **107**

Oil skimmer/collector

The semi-portable skimmer is designed for use in reclaiming oils of differing viscosities. It is suitable for applications where the need for oil collection is less than 1200 gal/day. Pollution Control Engineering **109**

Remote control positioner

This system provides automatic remote control micropositioning. The system is capable of controlled position repeatable to within 1 μ , and can be used for data acquisition and handling. Applications include interferometry and meteorology. Klinger Scientific **110**

Thermal desorption system

System is designed for analysis of organic compounds in the picogram range. The system features automatic control of cryogenic and heating phases, which simplifies the analysis. Sample contact surfaces are nickel, pyrex or polyimide. Applications include analysis of airborne carcinogens and hazardous industrial compounds. Nutech **113**

Operating system for gc/ms

With this multi-disc operating system, up to eight 50-megabyte disc drives can be connected (in addition to the system's own 5-megabyte dual disc drive) to store on-line 400 million words of data. The stored information may include spectra and special libraries. Hewlett-Packard **134**



Dark field colony counter

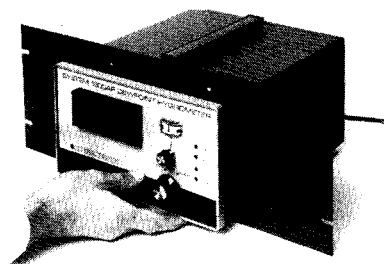
This specially designed counter reduces the fatigue of bacteria counting in water and sewage treatment plants. The counter uses a circular lamp and a jet black, reflectionless background; no direct light reaches the operator's eyes but colonies and rulings are sharply defined. The lens is adjustable. Hellige **104**

Electrochemical coagulation system

The electrochemical cells stimulate the coagulation and flotation of suspended, colloidal and other waterborne contaminants. These systems are custom designed and fabricated. RCL Industries **105**

UV detector for HPLC

This UV detector for the high-pressure liquid chromatograph features excellent baseline stability, according to the manufacturer. The detector is virtually flow-insensitive and can be used with 0.0025 AUFS (absorbance units full scale) with pulsing pumps. Short-term noise is less than 50 μ AU. Spectra-Physics **135**



Dew-point hygrometer

These units are portable but can be panel mounted. Instruments are designed for industrial and meteorological applications. Ranges of -100 to +200 °F dew point, 15-99% relative humidity and 0-2000 ppm are available with direct digital readout. General Eastern Instruments **106**

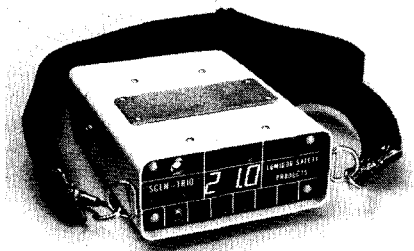
AA spectrophotometer

This atomic absorption spectrophotometer is able to take data in the "running mean" mode. A series of readings is taken automatically, while the digital display shows the updated mean. Options are available that produce more data-handling capability. Instrumentation Laboratory **136**

Opacity monitor

The principle feature of this unit is the modular pull-out solid-state electronic chassis that facilitates field servicing. The digital display reads in terms of opacity or optical density. The monitor can be used on baghouses, electrostatic precipitators and coal-fired steam generators. Dynatron **137**

Need more information about any items? If so, just circle the appropriate numbers on one of the reader service cards bound into the back of this issue and mail in the card. No stamp is necessary.



Multiple gas monitor

This portable unit contains three sensors: oxygen level with digital display from 0-99.9%; toxic gases; and flammable gases. Each sensor circuit operates a threshold alarm system for both loud audible and LED visual indications. Lumidor Safety Products

108

Oxygen electrode

The electrode can be used with any pH meter to yield readings of dissolved oxygen over the range 0-14 ppm. Room air is used as the standard. An accessory overflow funnel with a built-in stirrer simplifies BOD measurements. Orion Research

111

Home water treatment system

The system consists of three filters: one filters out large particles like silt; another, fine particulate matter (0.3μ); and a third, an activated-granular filter, that removes chlorine and the trihalomethanes. A fail-safe mechanism halts operation of the unit once the silver-impregnated carbon in its filters is exhausted. The unit is registered with the EPA. Aqualux Water Processing

142

Self-cleaning screen

This pressurized screen removes large contaminants—oversized particles, aggregates and agglomerates—from water or industrial slurries with viscosities up to 15 000 cps. The screen is useful in many recycling applications. Bolton-Emerson

143

Solvents for chromatography

Twenty-one of the most important solvents for chromatography, especially HPLC, are available in a high state of purity. MC/B Manufacturing Chemists

144

Water quality monitors

These monitors, suitable for monitoring influent, process or effluent streams, fall into three categories: single parameter; multiparameter and wet chemistry. The electronics interface with controllers, recorders and data handling systems. Gam Rad

145

Nitric oxide analyzer

The unit, a nondispersive infrared analyzer, can detect nitric oxide and CO, and SO₂ in multi-component streams. The unit can, in many cases, compensate for the IR absorption characteristics of background contaminants. Mine Safety Appliances

139

Free chlorine monitor

The instrument uses a polarographic membrane sensor to detect free chlorine in aqueous solutions. The unit finds application in water and wastewater and effluent monitoring. Delta Scientific Products

140

Dissolved oxygen analyzer

This measuring system will detect oxygen in saline waters with salinities up to 50 parts per thousand or with chlorine levels up to 27 parts per thousand. Oceanographers and water-source quality engineers can now measure in oceans or estuaries with changing concentrations of salt. Orbisphere Laboratories

141

Oil-spill skimmer

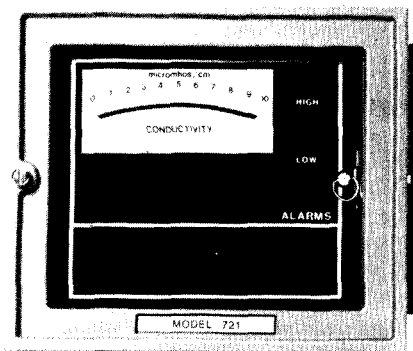
These skimmers can be used on open seas or in enclosed waterways to skim thick of thin-film oil spills with an efficiency of 98%. The collected oil can be pumped into a tanker or barge or transported to shore facilities for reclamation. LPI Corp.

146

Biological toilet

The system uses no water, no chemicals, no septic tank system and is non-incinerating and causes no pollution, according to the manufacturer. Human wastes are transformed to water vapor and compost. The toilet is portable. Santerra Industries

112



Conductivity transmitter/analyzer

This electrodeless unit is able to make accurate conductivity measurements in highly concentrated solutions. Conductivity can be measured in ranges of 0-100 000 and 0-1 million microohms/cm. There is an instant alarm indicator. Uniloc

114



Liquid droplet in mist monitor

The instrument will measure the size and concentration of liquid droplets in a mist or spray while ignoring the existence of solid particles. It finds application in scrubber, and demister and cooling tower monitoring. KLD Associates

115

Scrubbing systems

These high efficiency, electrostatically augmented wet scrubbers can control submicron emissions and opacity problems from industrial emissions. Efficiency is rated at 96-99%; visible emissions can be held below 10% opacity. RP Industries

116

Centrifugal pump

This all-plastic, 1000 gpm horizontal centrifugal pump can be used to handle corrosive liquids. It is most suitable for applications requiring slow speed pumping with large capacity. Vanton Pump

147

PVDF piping system

The system is manufactured from polyvinylidene fluoride and can be used for high temperature and high pressure handling of halogen compounds, oxidants, and strong acid and bases. The system can handle a variety of highly corrosive chemicals at temperatures up to 280 °F. Celanese Piping Systems

148

Temperature programmer

The unit provides for setting levels and ramps directly in engineering units by means of digital thumbwheel switches. A meter and LED indicators show instantaneous programmer output and indicate that hold levels have been reached. Eurotherm

149

Filtration units

These high-temperature filtration units are designed to remove particles from process gas emissions. The units remove 5-20 μ particles at temperatures as high as 1000 °F. Proceadyne Corp.

150