

Solutions and Applications

Compressed Air Monitoring, Respiratory Airline Monitoring & Filtration

ENMET provides compressed airline monitoring and filtration systems for many applications including monitoring and filtering supplied breathing air, monitoring hospital compressed air systems, and monitoring compressed air in manufacturing processes. Our compressed airline CO monitors are designed to meet OSHA monitoring requirements for Grade D breathing air and NFPA 99 "Medical Air System Guidelines". Products include our popular CO-Guard respiratory airline CO monitor. Our most advanced airline monitors, MedAir 2200 and ProAir 2200, are UL and CSA certified and can monitor up to four points of detection including CO, CO₂, O₂, dew point, VOCs, trace hydrocarbons and an array of other hazardous gases that may be present in compressed air.

Hazardous Gas Monitoring – Worker Exposure

ENMET has a variety of hazardous gas detectors and analyzers to help maintain a safe work environment. We can custom design monitoring systems with remote gas monitoring sensor/transmitters utilizing an array of sensor technologies. These systems provide continuous real-time monitoring of a variety of hazardous toxic and combustible gases and vapors, as well as oxygen and dew point conditions. ENMET also has compressed air monitoring and filtration systems for supplied breathing air. Applications include industrial, commercial and manufacturing processes, oil and gas, petrochemicals, specialty chemicals, industrial refrigeration, water and wastewater treatment, plastics and fibers, pulp and printing, agriculture, medical and pharmaceutical.

Hospital Applications: Medical Gas Verification and Medical Air Systems Monitoring

ENMET offers a wide range of products for hospital applications designed to meet medical air systems monitoring requirements including compressed airline monitors, medical gas verifiers, oxygen deficiency monitors for MRI rooms, facility ambient air oxygen monitors, portable detectors, continuous fixed gas monitoring systems with remote sensors and sample draw capability. Analyzers are supplied for measuring CO₂, CO, oxygen deficiency and abundance, methane, nitrous oxide, anesthesia gases, dew point, hydrocarbons, and many toxic gases including ETO, Cl₂, O₃, and formaldehyde. Many of these medical air monitoring systems are designed to meet OSHA monitoring requirements for Grade D breathing air and NFPA 99 Medical Air System Guidelines.

Workplace Air Quality Monitoring

Poor indoor air quality has been tied to symptoms such as headaches, dizziness, fatigue, and irritation of the eyes, nose, throat and lungs. ENMET provides portable and fixed ambient air analyzers designed to monitor indoor quality and help maintain a safe work environment. These systems can be mounted in various rooms for continuous monitoring, or in a control room with sensors remotely mounted. Our Formaldemeter is a direct-reading instrument that accurately detects formaldehyde vapors and can be used as a portable or continuous monitor. Our portable *mGC* is a chemically specific analyzer that measures sub ppm levels of gases such as ethylene oxide, benzene, and vinyl chloride. ENMET's detection systems are capable of monitoring an array of air quality hazards including unsafe oxygen levels as well as the presence hazardous gases and vapors.

Fenceline Benzene Monitoring

ENMET's autonomous fenceline monitors provide accurate and reliable trace ambient air analysis near and around the perimeter of a refinery, helping provide proper EPA compliance monitoring and reporting. ENMET's new GC products are specifically designed for refineries and can provide trace level analysis with affordability for measurement of benzene and similar compounds. Our eGC trace toxic chemical monitor for field applications provides an accurate and cost effective solution for fenceline detection of sub parts per billion (ppb) of benzene in accordance with Method 325A/B. This real-time monitoring system will help a refinery determine the magnitude and timing of a benzene release at the "fenceline" of the facility to allow for corrective action.

Safety Compliance Monitoring

ENMET has an array of gas detection systems to help you meet safety monitoring requirements mandated by OSHA, NFPA, EPA and other such agencies. ENMET's selection of portable and fixed GC analyzers, are designed to provide toxic chemical analysis for OSHA compliance monitoring. ENMET's continuous compressed air monitoring systems for CO are designed to meet OSHA 1910.134 monitoring requirements for Grade D breathing air. Our more advanced compressed airline monitors also meet NFPA 99 "Medical Air System Guidelines" for CO and dew point monitoring and are UL and CSA certified for Medical Electrical Equipment Safety Requirements. Our rugged EX-Series sensor transmitters are designed for harsh environments with options for NEMA 4X, NEMA 7 and IP66 rated explosion proof enclosures.

Wastewater Treatment Plants: Wet Well Monitoring

Wastewater treatment plant operators are exposed to a variety of dangerous chemical agents generated during water treatment processes. Properly monitoring and warning of potentially hazardous gases is crucial in preventing worker exposure and providing a safe working environment for plant personnel. ENMET's array of wet well monitoring systems with remote sensor monitoring and portable detectors for confined space safety are available and designed specifically for the water and wastewater treatment industry. These systems include single or multi-channel gas monitoring instruments for detecting hazardous gases typically present at wastewater treatment facilities, including H₂S, CH₄, Oxygen deficiency, Cl₂, and many others.

Confined Space Safety Monitoring

Confined work spaces can be found in almost any workplace. Examples of confined spaces include sewers, utility vaults, silos, vats, hoppers, tanks, pipes, truck or rail tank cars, aircrafts, boilers, access shafts, manholes, manure pits, ship holds, tunnels, and storage bins. The most common atmospheric hazards associated with confined spaces are oxygen deficiency, oxygen enrichment, flammable atmospheres and toxic gases. ENMET offers both portable and fixed gas detection instruments for confined space monitoring. Our fixed systems can be installed with integral or remote sensors to continuously monitor a confined space. All of our confined space monitoring systems have audio and visual alarms and can be customized to detect a variety of hazardous gases and vapors.

Aerospace and Defense

ENMET is an AS9100 certified company providing fuel detection monitors for a variety of Aerospace applications and Defense programs. Products include aircraft qualified jet fuel leak detectors, pilot oxygen air monitors, cabin air quality monitors and compressed breathing air monitors. Our Jet fuel vapor detectors are qualified for JP-5, JP-8 & Jet A and can be used on manned & unmanned military aircraft. ENMET's line of compressed air monitors are an excellent solution for meeting OSHA monitoring requirements for Grade D breathing air for worker supplied air systems in aircraft manufacturing facilities.

Environmental Ambient Air Monitoring

ENMET provides gas analyzers and monitors for environmental ambient air monitoring and detecting of toxic chemicals in and around your facility. Our chemically specific instruments provide real-time monitoring and reporting of a chemical exposure enabling your staff to respond to the situation quickly and accordingly. Our GC products are designed to help maintain a safe workplace environment within your facility and provide a real-time cost effective solution for monitoring and reporting trace toxic chemicals in field applications. Our eGC, autonomous environmental analyzer provides fenceline detection of benzene in sub ppb in accordance with EPA Method 325A/B.

Medical Gas Verification and Medical Air Systems Monitoring

ENMET offers a wide range of products for the medical market including compressed airline monitors, medical gas verifiers, MRI room oxygen monitors, single or multi-gas portable detectors, and continuous multi-channel fixed gas detection systems with remote sensors and sample draw capability. Analyzers are supplied for measuring carbon dioxide, carbon monoxide, oxygen deficiency or abundance, methane, nitrous oxide, anesthesia gases, dew point, hydrocarbons, and many toxic gases including formaldehyde, ethylene oxide, chlorine and ozone. Many of these medical air monitoring systems are designed to meet OSHA monitoring requirements for Grade D breathing air and NFPA 99 "Medical Air System Guidelines".

Industrial Safety Monitoring

ENMET offers a spectrum of gas detection and monitoring systems to ensure the safety of plant and factory workers. Our fixed instruments are designed to operate continuously and provide long-term monitoring to protect workers from exposure to hazardous gases or chemical threats in industrial workplace. Our portable instruments can monitor potentially hazardous work areas throughout a facility. Instruments are available to help meet safety monitoring requirements mandated by OSHA, NFPA, EPA and other such agencies. Applications include industrial and commercial manufacturing processes, mining, aerospace and defense, wastewater treatment, specialty chemicals, industrial refrigeration, plastics and fibers, pulp and paper, and oil, gas and petrochemical refineries.

Oil, Gas, Petrochemical & Refineries

ENMET's ambient air analyzers, and autonomous fenceline monitors are essential in maintaining a safe workplace environment and allowing your company to provide OSHA and EPA compliance monitoring and reporting. ENMET's new GC products are specifically designed for refineries, providing trace level analysis with affordability for measurement of benzene and similar compounds. Our eGC trace toxic chemical monitor for field applications provides an accurate and cost effective solution for fenceline detection of sub parts per billion (ppb) of benzene in accordance with Method 325A/B. This real-time monitoring system will help a refinery determine and report the magnitude and timing of a benzene release at the "fenceline" of the facility.

Pharmaceutical Process Air Quality

Compressed air is often used in the production and packaging process in pharmaceutical manufacturing. Compressed air and other process gases such nitrogen, oxygen, argon, and carbon dioxide that come into direct contact with pharmaceutical products must be tested and monitored to prevent the risk of contamination and ensure the quality and safety of the products. ENMET's compressed airline monitors provide continuous monitoring of a compressed air supply to ensure the quality and safety of the supplied air system. Our ProAir 2200 process airline monitor can continuously and simultaneously monitor up to four gases in real-time. Our system can be custom configured to monitor a variety of hazardous gases and dew point.

Wastewater Treatment Plants & Utilities

Plants operators at wastewater treatment plants are exposed to a variety of hazardous chemical agents used in water processing and treatment. Properly monitoring these potentially dangerous gases prevent worker exposure and provide a safe working environment for wastewater treatment plant personnel. ENMET's array of portable detectors, fixed gas monitoring systems with remote monitoring capability, and confined space safety monitors are available and designed specifically for the wastewater industry. These instruments monitor for hazardous gases typically present at wastewater treatment plants, including chlorine Cl₂, hydrogen sulfide H₂S, methane CH₄, Oxygen deficiency, and other hazardous gases. Utility workers can also be exposed to similar hazardous gas situations in the field, and many of these systems can also be designed to protect utility personnel.