**Solutions for Chemical Manufacturing**

**High Quality Analyzers for Diverse Gas, Water, and Liquid Process Applications**

**Mass Spectrometers & Optical Spectroscopy Analyzers**

- Rapid gas and liquid analyzers to enable real-time control of process reactors
- Fast, accurate process optimization for increased manufacturing yields, safer operation and reduced wear on equipment
- Inline and online process analyzers for methanol in water, caustic and carbonate concentrations, ethylene dichloride (EDC) vent gas, etc.

**Applications:**

**Optical / Mass Spectrometers & Heating Value Analyzers**

- Real-time gas analyzers for flare compliance and control
- $\text{H}_2\text{S}$, Total Sulfur, Net Heating Value/BTU (NHV), $\text{H}_2$, and full speciated composition
- Complete analysis for compliance with regulations such as EMACT, MONMACT, RSR, Subpart Ja, Ontario Reg. 530/18, Korean Facility Management Standards to Reduce Fugitive Emissions, and HRVOC rules

**Flare Gas**

- Real-Time Mass Spectrometers for Compliance and Flare Control
- $\text{H}_2\text{S}$, Total Sulfur, Net Heating Value/BTU (NHV), $\text{H}_2$, and full speciated composition
- Complete analysis for compliance with regulations such as EMACT, MONMACT, RSR, Subpart Ja, Ontario Reg. 530/18, Korean Facility Management Standards to Reduce Fugitive Emissions, and HRVOC rules

**Applications:**

**Process Control**

- FTIR/FT-NIR process Analyzer for Liquids, Solids and Gases
  - ANALECT PCM 1000™
- Industrial Mass Spectrometers for Real-Time, Multi-Stream Process Control
  - MAX300-RTG™ 2.0
- Real-Time, Multi-Stream Process NIR Spectrometer
  - NIR-O™
- Dual Beam Photometer for Continuous PAT Monitoring
  - ClearView db®
**Fuel Gas**

- Real-time gas analyzers for environmental compliance and combustion control
- Rapid response for optimized combustion efficiency and accurate \( \text{H}_2 \) blending to reduced carbon emissions
- Multiple solutions for compliance with regulations such as 40 CFR Part 60, and HRVOC rules
- \( \text{H}_2 \text{S}, \text{Total Sulfur, Net Heating Value (NHV), O}_2 \) and COe, Wobbe, Specific Gravity, CARI, and full speciated composition

**Applications:**
- Water Influent and effluent discharge control
- Process control, high purity, oil in water, cooling water, condensate return, water-steam cycles and environmental compliance
- Total Organic Carbon (TOC) in water

**Water Quality Analyzers**

**Water & Wastewater**

- Fast, Multi-Cycle Total Sulfur Fuel Gas Analyzer FGA-1000™
- Direct Heating Value Analyzer for BTU, CARI, Wobbe and Density 9610™ Calorimeter
- In Situ O\(_2\) and COe for Combustion Monitoring for Burner Optimization O2CX™ Monitor
- Industrial Mass Spectrometers for Real-Time, Multi-Stream Fuel Compliance and Control MAX300-RTG™ 2.0

- TOC Water Analyzer for Harsh Wastewater Applications QuickTOCultra™
- TOC Water Analyzer for Clean Water Applications QuickTOCuvll™
- TOC Water Analyzer for Municipal & Cooling Water Applications QuickTOCeco™
- COD Water Analyzer for Laboratories QuickTOClab™
Applications:
- Continuous moisture analysis in instrument air and dryers and portable spot checking
- Trace moisture in clean dry air, ppb to %

Instrument Air & Dryers

Aluminum Oxide Dew Point Meters for Portable/Fixed/Loop-Powered Applications
XDT / XPDM / LPDT / LPDT2™

CRDS Analyzer for UHP Moisture in Air
Spark™

Heating Value, Electrochemical & Spectroscopy Analyzers

Applications:
- Hydrogen and syngas process control, and hydrogen purity analysis
- Increased accuracy and efficiency for all stages of the hydrogen economy- generation, storage, and delivery
- Gas analyzers for H₂O, CO, CO₂, H₂, N₂, CH₄, H₂S, hydrocarbons, BTU, Wobbe, CARI and Density

Steam Methane Reformer

Benchtop Mass Spectrometers for Real-Time, ppb-level, Multi-Impurity Analysis
MAX300-LG™

NEW

Industrial Mass Spectrometers for Real-Time, Multi-Stream Process Control
MAX300-RTG™ 2.0

NEW

Injection Style Heating Value Analyzer for Zero-Hydrocarbon Emissions for BTU and Flare Control
9800™ Calorimeter

NEW

Portable and Fixed Aluminum Oxide Dew Point Meters
XPDM™

Real-time Cavity Ring Down Spectroscopy (CRDS) Impurity Analyzers
for H₂O, CO, CH₄ and CO₂
CO-rekt™ and Prismatic 3™
### Sulfur Analysis

- **Applications:**
  - Sulfur analysis in butane, diesel, liquid fuels, LNG, hydro-treaters, blenders and scrubbers
  - Renewable Natural Gas (RNG) and biofuels manufacturing
  - H₂S, Total Sulfur and Total Nitrogen and Trace Sulfur
  - Net Heating Value/BTU (NHV), H₂ and full speciated composition
  - Meets ASTM D5453, for compliance with regulations like US EPA Tier III, European Euro 6 or the Indian Bharat VI

### Laboratory, Safety, & Compliance

- **Applications:**
  - Air and fence line monitoring compliant with regulations such as OSHA requirements, USEPA Method 320, and the RSR
  - O₂ deficiency safety monitoring, sulfur and nitrogen in fuels and biofuels, moisture calibration of sensors and standards
  - Trace gas analyzers for H₂O, O₂, H₂, CH₄, NH₃, CO, CO₂, N₂, Ar, He and hydrocarbons

### Optical & Mass Spectrometry Analyzers

- **Fast, Multi-Cycle Total Sulfur Gas Analyzer**
  - SGA-1000™

- **Real-Time Total Sulfur in Liquids Analyzer**
  - SLA-1000™

- **Real-Time Laboratory Total Sulfur and Total Nitrogen in Liquid and Gases**
  - XT-2000™

- **Industrial Mass Spectrometers for Real-Time, Multi-Stream Fuel Compliance and Control**
  - MAX300-RTG™ 2.0

### Spectrometers, Water Quality, Electrochemical & Chilled Mirror Analyzers

- **Trace to Percent Oxygen Monitors for Portable and Fixed Applications**
  - Series 3520™ and OXY-SEN™

- **Real-Time Hydrogen Peroxide Vapor (HPV) Sterilant Gas Monitoring System**
  - ClearView db® Hydrogen Peroxide Vapor HPV™

- **Total Sulfur-Total Nitrogen Gas Analyzers**
  - XT-2000™

- **Chilled Mirror Dew Point Meters**
  - 373 Model™

- **Real-Time Air Analyzers for Environmental Health and Safety**
  - MAX300-AIR™

- **FTIR Environmental Vapor Monitoring Analyzer**
  - ANALECT EVM™

- **TOC Water Analyzers for Pure and Process Water Applications for Laboratories**
  - QuickTOCpurity™

- **COD Water Analyzer for Laboratories**
  - QuickTOClab™
GAIN REAL-TIME INSIGHT INTO YOUR PROCESS

Process Insights manufactures and delivers premium sensors, monitors, detectors, analyzers, instrumentation, and software that are mission-critical to keep your operations, personnel, and the environment safe – every day across the globe.

Get the most reliable, precision analytical technologies available on the market today. We will work to match your needs and budget, and provide the optimal, and most stable process analysis solution for your application.

CENTERS OF EXCELLENCE | PROVIDING PROVEN SOLUTIONS

Process Insights is committed to solving our customers’ most complex analytical, process, and measurement challenges everyday.

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