

Solutions for the Oil Refining Industry

High Quality Analyzers for Diverse Gas, Water, and Liquid Hydrocarbon Applications

Heating Value, Spectroscopy & Electrochemical Analyzers



Fuel Gas

Applications:

- Real-time gas analyzers for environmental compliance and combustion control
- Rapid response for optimized combustion efficiency and accurate H₂ blending to reduced carbon emissions
- Multiple solutions for compliance with regulations such as 40 CFR Part 60, and HRVOC rules
- H₂S, Total Sulfur, Net Heating Value (NHV), O₂ and COe, Wobbe, Specific Gravity, CARI, and full speciated composition





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





Direct Heating Value Analyzer for BTU, CARI, Wobbe and Density

9610 CXc™ Calorimeter



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

Optical / Mass Spectrometers & Heating Value Analyzers



Flare Gas

Applications:

- Real-time gas analyzers for flare compliance and control
- H₂S, Total Sulfur, Net Heating Value (NHV)/BTU, H₂, 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



Total Sulfur Gas Analyzers **FGA-1000™**





Injection Style Calorimeter for Zero-Hydrocarbon Emissions for BTU and Flare Control

9800 CXi™ Injection Style Calorimeter



Real-Time Mass Spectrometers for Compliance and Flare Control MAX300-RTG™ 2.0

Optical & Mass Spectrometry Analyzers



Sulfur Analysis

Applications:

- Sulfur analysis in butane, diesel, liquid fuels, LNG, hydro-treaters, blenders, and scrubbers
- H₂S, Total Sulfur and Total Nitrogen, Trace Sulfur, Net Heating Value (NHV)/BTU, 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



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



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



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



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



UV-VIS Process Analyzer for H₂S to SO₂ Ratio **M508plus™**

Optical Spectroscopy Analyzers



Crude Oil Processing

Applications:

- Real time process analyzers for naphtha conversion, catalytic conversion, upgrading units, isomerization, alkylation, and gasoline and diesel blending
- Monitor catalyst efficiency
- PIONA content of reformate, octane numbers, volatility (RVP, vapor-to-liquid ratio), aromatics content, olefins, oxygen, benzene, distillation parameters, Fuel ID, and Fuel Color + Turbidity



Dual Beam Photometer for Continuous PAT Monitoring Available in Several Enclosure Options ClearView db®





Benchtop NIR Spectrometer for QC Lab and Pilot Plant Operations Lab NIR-O™



Real-Time, Multi-Stream Process NIR Spectrometer NIR-O™



FTIR/FT-NIR Process Analyzer for Refining Applications

RefinIR™



Process FTIR Analyzer for Refinery Monitoring **Hydrocarbon SmartSystem™**

Electrochemical Sensors & Laser Spectroscopy Analyzers



Instrument Air & Dryers

Applications:

- Continuous moisture analysis in instrument air and dryers, and portable spot checking
- Trace moisture in clean dry air, ppb to % level







CRDS Analyzer for UHP Moisture in Air **Spark™**

Heating Value, Electrochemical & Spectroscopy Analyzers



Steam Methane Reformer

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



Industrial Mass Spectrometers for Real-Time, Multi-Stream Process Control MAX300-RTG™ 2.0 Spectrometers for Real-Time, ppb-level, Multi-Impurity Analysis **MAX300-LG**™



Injection Style Heating Value
Analyzer for ZeroHydrocarbon Emissions for
BTU and Flare Control
9800 CXi™ Calorimeter



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Portable and Fixed Aluminum Oxide Dew Point Meters **XPDM™**

OSAXENTAUR

Real-time Cavity Ring Down Spectroscopy (CRDS) Impurity Analyzers for H₂O,CO, CH₄ and CO₂CO-rekt™ and Prismatic

Spectrometers, Electrochemical & Chilled Mirror Analyzers



Laboratory, Safety & Compliance

Percent and Trace Oxygen Analyzers, and Oxygen Deficiency Safety Monitors Series 3520™ and OXY-SEN™

ALPHA OMEGA INSTRUMENTS



Chilled Mirror
Dew Point Meters
Model 373™

Applications:

- Air and fenceline 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 $\rm H_2O,\,O_2,\,H_2,\,CH_4,\,NH_3,\,CO,\,CO_2,\,N_2,\,Ar,\,He,$ and hydrocarbons



Real-Time Air Mass Spectrometers for Environmental Health and Safety MAX300-AIR™



Total Sulfur-Total Nitrogen Gas Analyzers XT-2000™

Water Quality Analyzers



Water & Wastewater

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



TOC Water Analyzer for Harsh Wastewater Applications **QuickTOCultra**™



TOC Water Analyzer for Clean Water Applications **QuickTOCuv™**



TOC Water Analyzer for Municipal and Cooling Water Applications **QuickTOCeco™**



COD Water Analyzer for Laboratories **QuickCODlab™**



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Process Insights delivers premium analytical sensors, analyzers, instrumentation, software and solutions that are mission-critical to keep your operations, personnel, and the environment safe. Our commitment to customer satisfaction is evident through our diverse range of products, programs, and services, designed to accommodate various budgets and application needs.

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