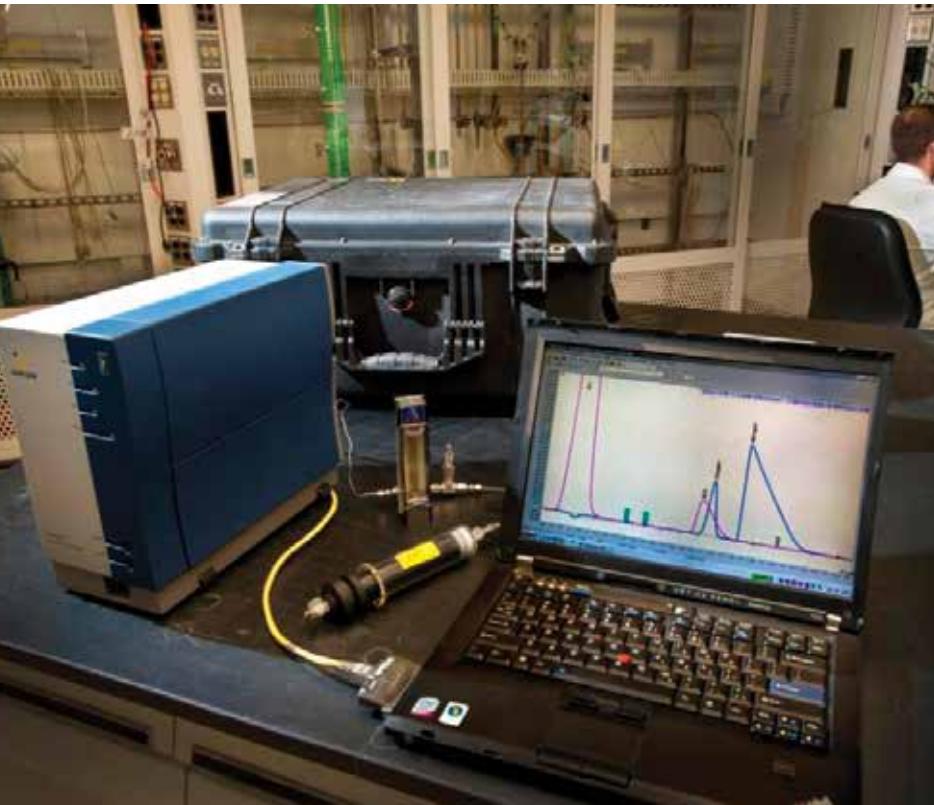


MECS® PeGASyS PORTABLE GAS ANALYSIS SYSTEM



MECS® DIAGNOSTIC AND CATALYST SERVICES

MECS® PeGASyS — THE INDUSTRY'S ONLY GAS CHROMATOGRAPHY BASED DIAGNOSTIC SYSTEM

The MECS® PeGASyS system uses proprietary simulation software to trouble-shoot and optimize sulfuric acid plant operations. The system includes a portable gas chromatograph, carrier and calibration gases, sample syringes, and all the necessary supplemental equipment to operate the system safely and effectively. MECS, Inc. (MECS) is in a unique position to offer PeGASyS as a state-of-the-art tool combined with hands on practical engineering experience. The in-plant tech service involves a PeGASyS technician traveling to a customer site, setting up the equipment, collecting gas samples in the plant, and analyzing the samples using a portable gas chromatograph to determine the concentration of SO₂ and O₂ in the gas sample. Unlike other test methods that use infrared analyzers or Reich tests, PeGASyS uses proprietary simulation software and a custom designed gas chromatograph to generate consistent and more accurate test data. This data is put into a database and is discussed with the customer. A sulfuric acid plant should be PeGASyS tested with the same frequency as it undergoes a turnaround or whenever it encounters problems with conversion, pressure drop, heat exchangers, or emissions.

FEATURES AND BENEFITS

MECS® PeGASyS PROVIDES

- Pre-turnaround investigation of an existing problem
- Post-turnaround validation of a solution
- Heat exchanger leak detection
- Converter performance optimization
- SO₂ emissions monitoring

MECS® PeGASyS ADVANTAGES

- Plant management will understand the true health of the plant
- Equipment repair or replace decisions can be made faster as a result of acquiring more data
- Operating costs can be better evaluated
- Systematic maintenance planning is simplified
- Optimized plant production and profitability
- Reduced SO₂ emissions results in cleaner air



MECS®

CATALYST SERVICES

www.mecsglobal.com

MECS® PeGASyS PORTABLE GAS ANALYSIS SYSTEM

TEST TIMING AND DURATION

The customer should allow at least two months lead time before the desired testing date to ensure technician availability and avoid scheduling conflicts. MECS strives to accommodate urgent testing needs but prior scheduling may prevent us from making emergency trips. For best results, the plant should be operating at design capacity during PeGASyS testing. The customer should expect a PeGASyS technician to arrive on site the day before scheduled testing in order to set up and calibrate the equipment. Collecting samples and analyzing data takes at least one full day for each plant tested. The technician will leave the following day, after finishing any necessary further testing. The customer should expect to ship the PeGASyS equipment back to the lab or another testing site. After all data is acquired and the technician has returned to the MECS office, complete analysis of the data is performed. This analysis includes using proprietary design and simulation programs to analyze the current state of the sulfuric acid plant. As a result of the thorough investigation, the customer will receive a report detailing the conclusions and recommendations for the plant.



MECS® PeGASyS EXPECTED RESULTS

A PeGASyS test is an all-encompassing look into the gas side of a sulfuric acid plant. By acquiring data at many different points in the process, PeGASyS can reach the following conclusions:

- Quantification of heat exchanger leak
- Calibration of plant analyzers & indicators
- Quantification of catalyst effectiveness
- Overall bed conversion efficiency
- Overall bed conversion efficiency
- Pressure drop through catalyst bed
- Recommended screening of catalyst
- Quality of operating process conditions

REQUEST A MECS® PeGASyS TEST

PeGASyS technical service is offered throughout the world. You may contact your local representative, sales agent, MECS catalyst engineer or visit the PeGASyS web page at <http://www.mecsglobal.com/pegasys-request.aspx> to request a PeGASyS test. This test can evaluate and potentially improve the efficiency, quality and emissions performance of your sulfuric acid plant.



PeGASyS equipment cases are configured for heavy duty protection as well as ease of U.S. TSA and international customs and security inspections to expedite shipment and avoid delays.



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