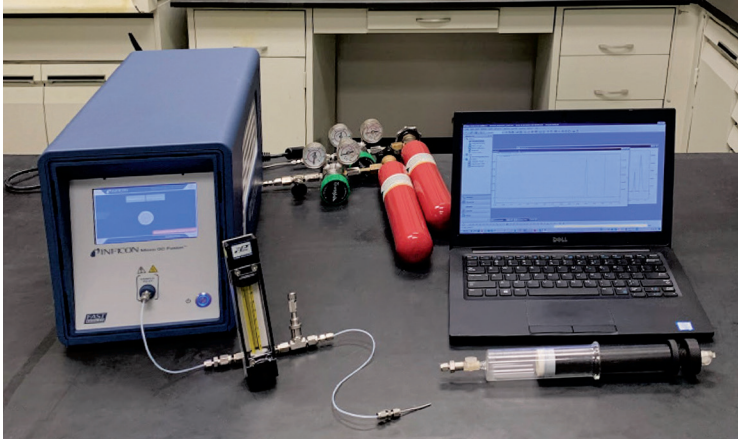




MECS® PeGASyS™ PORTABLE GAS ANALYSIS SYSTEM



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 troubleshoot 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. PeGASyS™ sampling service is a state-of-the-art tool combined with hands-on practical engineering experience from MECS® technology experts. This in-plant technical 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 entered into a database and preliminary results are discussed with the customer while the technician is still on-site. PeGASyS™ testing should be performed with the same frequency as a turnaround or during troubleshooting events when problems with conversion, pressure drop, heat exchangers or emissions are encountered.

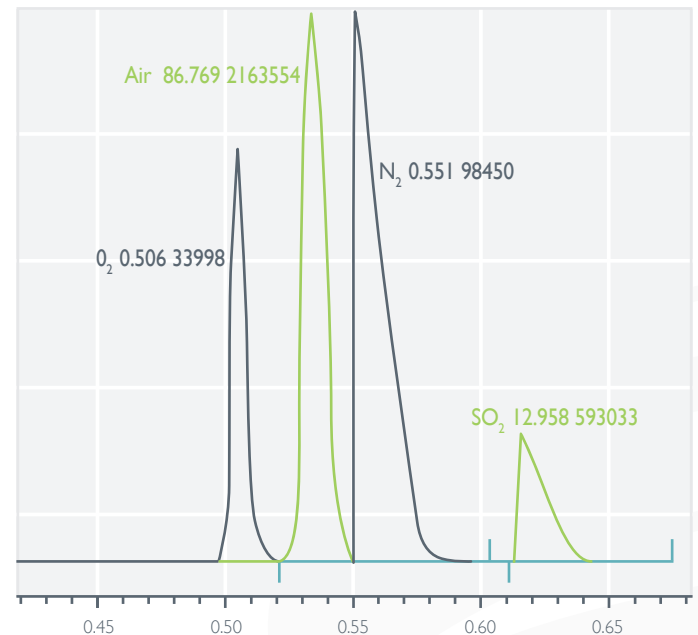
FEATURES AND BENEFITS

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 replacement decisions can be made faster as a result of acquiring more in-depth data
- Operating costs can be better evaluated
- Systematic maintenance planning is simplified
- Optimized plant production and profitability
- Reduced SO₂ emissions result in cleaner air



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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. 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 final testing. The technician will arrange 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 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™ testing can provide the following conclusions:

- Quantification of heat exchanger leak
- Calibration of plant analyzers & indicators
- Quantification of catalyst effectiveness
- 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. Contact your local sales or technical service representative to request a PeSASyS™ test. This test can evaluate and potentially improve the efficiency, quality and emissions performance of your sulfuric acid plant.

PLANNING FOR PeGASyS™ TESTING				
1	2	3	4	5
CONTACT Contact MECS® representative	SCHEDULE Allow one day per plant	PREPARE Ensure plant is operating at design capacity	COLLECT MECS® field engineer collects data	REPORT Final PeGASyS™ report issued

Elessent Clean Technologies
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