



## MECS® TECHNICAL SERVICES FOR SULFURIC ACID PLANTS

### **AROUND THE WORLD, COUNTLESS INDUSTRIAL COMPANIES FROM FERTILIZER COMPANIES TO PIGMENT MANUFACTURERS RELY ON A KEY INGREDIENT: SULFURIC ACID.**

Elessent Clean Technologies brings almost a century of expertise to best-in-class sulfuric acid plant engineering and processes, offering market-leading environmental technologies, equipment, energy recovery systems and technical services. We have designed more than 400 customized plants worldwide since the 1960s to suit the feedstock, location, environmental regulations and energy requirements of customers in a wide range of industries. That means our team of highly skilled technical experts is uniquely positioned to support sulfuric acid producers with services that allow them to optimize their operations.

### **MECS® TECHNICAL SERVICES**

- Troubleshooting services
- Turnaround consulting
- Commissioning support
- Startup and shutdown support
- Reliability improvements
- Plant optimization
- Small-projects assistance
- Remote acid plant data analysis
- HAZOP support & 3D model reviews
- Acid plant revamp studies
- PeGASyS™ diagnostic testing
- Mist sampling
- Non-destructive testing
- Operator training
- Operator Training Simulator (OTS) systems



# MECS® TECHNICAL SERVICES FOR SULFURIC ACID PLANTS

## THE EXPERTS IN SULFURIC ACID PLANT SERVICES

Our technical services team supports sulfuric acid plant operators with unique specialist know-how and technical capabilities honed over decades working in the field. Whether you are planning to expand your acid plant capacity; need help with troubleshooting; want assistance with commissioning, turnarounds, startups or shutdowns; or need advice on improving the environmental performance, reliability, efficiency or OPEX costs of your plant, our experts can help no matter where you are in the world.

*We also offer a range of tools and systems to help with troubleshooting, reliability improvements and training.*

## MECS® CONVERTER AND CATALYST DIAGNOSTIC AND OPTIMIZATION SERVICES

Elessent Clean Technologies offers the sulfuric acid industry's only gas chromatography-based diagnostic system: MECS® PeGASyS™. Unlike other test methods that use infrared analyzers or Reich tests, this portable gas sampling and analysis tool uses proprietary simulation software and a custom-designed gas chromatograph grounded in practical engineering experience to troubleshoot and optimize sulfuric acid converter and catalyst operations.

The MECS® PeGASyS™ system includes a portable gas chromatograph, carrier and calibration gases, sample syringes and all the necessary equipment required for MECS, Inc. (MECS) technicians to conduct safe and effective gas sampling and diagnostic analysis on-site. Using this tool, our technical services experts can determine the concentration of SO<sub>2</sub> and O<sub>2</sub> in the gas sample, detect leaks and identify optimization opportunities.

## OTS SYSTEMS OPERATORS

Well-trained operators make informed decisions, spot issues and hazards, increase productivity, reduce safety and environmental incidents and improve efficiency. At Elessent, we believe that people learn the most when they use high-fidelity training tools in realistic environments. With that goal in mind, we developed the TMODES OTS to train operators to anticipate and/or respond to a variety of situations by integrating a realistic operator interface with a robust process simulator that accurately models the behavior of complex chemical processes, including alkylation and sulfuric acid regeneration.

*Tested and proven in Elessent operations for more than 20 years, the OTS system facilitates safe and reliable startups and sustainable sulfuric acid unit operation. The OTS package includes a large number of operator training scenarios and objective tasks, which makes it easy to customize to your particular needs.*



## GLOBAL OFFICES

### NORTH AMERICA

Global Headquarters  
Saint Louis, Missouri, USA

ContactUs-NA@ElessentCT.com

### LATIN AMERICA

ContactUs-LA@ElessentCT.com

### EUROPE | MIDDLE EAST AFRICA | INDIA

EMEA Headquarters  
Hoeilaart, Belgium

ContactUs-EMEA@ElessentCT.com

### ASIA PACIFIC

AP Headquarters  
Shanghai, China

ContactUs-AP@ElessentCT.com

### Jakarta, Indonesia

ContactUs-INDO@ElessentCT.com

Elessent Clean Technologies  
MECS® Technologies  
MECS.ElessentCT.com

Copyright © 2023. Elessent Clean Technologies, the Elessent Logo, and all trademarks and service marks denoted with ™, SM or ® are owned by affiliates of Elessent Clean Technologies Inc. unless otherwise noted.



E4501-02