

MEASUREMENT INTELLIGENCE

Bringing Digitalization To Factory Acceptance Tests

Sales Bulletin**usa.siemens.com/analyticalproducts**

Siemens Gas Chromatographs and Integration (GCI) has been a trusted supplier of analytical equipment for over 60 years. By custom-engineering solutions to the specific requirements of the end-user, our process analytical equipment has been used to provide timely analysis data to improve process efficiency, environmental impact and operational safety.

As part of the manufacturing process, the process gas chromatographs, system integration packages and analytical system monitoring systems undergo a rigorous set of final product tests and documentation. And while many customers have the analyzer system shipped when completed, some customers elect to check the system before shipment with a Factory Acceptance Test (FAT). During the FAT, the customer will have a chance to meet with the project lead and review all of the documentation and performance tests as well as inspect the hardware.

For many users, it is not practical to travel to the Siemens facility and spend a day or more to perform the FAT. So Siemens has developed a variety of remote electronic equipment acceptance options. These electronic acceptance tests allow the rigorous review of the analytical package while offering a number of advantages:

- Reduction in delays in system shipment due conflicts in scheduling the travel dates
- Elimination of travel time and expenses



Using secure encrypted communication techniques, a variety of electronic acceptance tests are available to the project needs:

- e-TDP** Electronic review of all system documentation
- e-FAT** Electronic FAT of process analyzer system
- e-SI** Electronic FAT of the System Integration project
- e-ASM** Electronic FAT of the Analytical System Manager

Details of each of these offerings are described in the following sections.

e-TDP

The electronic Test Data Package options is designed to establish a secure two-way connection to review of all the analyzer project documentation before the project is shipped. Project documentation reviewed include:

- Pre As-Built wiring and mechanical drawings
- Chromatograms and piping diagrams
- Repeatability test results
- Custom reports or calculations (if applicable)
- Sample system configuration (if applicable)
- Data tags and Modbus assignments (if applicable)

Once the Test Data Package is accepted, an electronic acceptance is documented and the analyzer system is ready to ship.

e-FAT

The electronic Factory Acceptance Test expands on the data package review as mentioned above by conducting the meeting over a secure live-streaming connection. The Siemens FAT checklist will help guide the customer to ensure that all aspects of the project are reviewed.

During the inspection, any items-of-note are documented if applicable. And once the inspection is complete, an electronic acceptance is documented and the analyzer system is ready to ship.

e-SI

Process analyzer System Integration project can be as simple as a small cabinet with a single analyzer installed on up to multiple large walk-in shelters each containing a wide variety of analyzers and support equipment. The electronic System Integration acceptance test, give the customer the opportunity to confirm that all aspects of the project meets the project requirements.

The e-SI will cover the review of all the engineering documents such as layout diagrams, piping diagrams and wiring diagrams.

Through the use of live streaming, the customer can visually inspect all of the hardware of the analyzer system. The Siemens FAT checklist will help guide the customer to ensure that all aspects of the project are reviewed.

During the inspection, any items-of-note are documented if applicable. And once the inspection is complete, an electronic acceptance is documented and the analyzer system is ready to ship.

e-ASM

The electronic acceptance to for the Analytical System Monitor is done over a secure connection to review the software solution. Live stream visualization and interactive dialog with the Siemens project lead confirms the project meets the customers requirements before project completion.

For more information, please contact:

Siemens Industry, Inc.
5980 West Sam Houston Parkway North, Suite 500
Houston, TX 77041
Phone: 713-939-7400
Email: ProcessAnalyticsSales.industry@siemens.com

Published by

Siemens Industry, Inc. Process Automation
Process Industries and Drives
100 Technology Drive Alpharetta, GA 30005
1-800-448-8224 info.us@siemens.com
Subject to change without prior notice
Order No.: PIAFL-00024-1021
Printed in USA All rights reserved
© 2021 Siemens Industry, Inc.