

# ON-SITE QUASAR PREVENTATIVE SOLUTIONS

FIELD SERVICE



## Achieving Sustainable Results with Advanced Energy Services

The mission of the Advanced Energy services organization is to deliver consistent value-added service so you can focus on your business. Our highly trained and dedicated Field Service Engineers (FSEs) are ready to partner with you to deliver the right sensing solutions with the best performance and longest-life.

You expect the highest quality from your investments in Advanced Energy technology; therefore, our promise is to:

- Deliver high-value customer care.
- Keep your assets reliable and working.
- Provide you the knowledge and expertise required to solve complex problems quickly.
- Service to prevent unplanned downtime and keep you running safely.

Our E<sup>2</sup>T Quasar support services have been designed specifically to keep your E<sup>2</sup>T Quasar system performing with minimal downtime.



# E<sup>2</sup>T Quasar On-site Maintenance



Advanced Energy can schedule to have an experienced and dedicated Field Service Engineer come out to your site to perform field commissioning and inspection. This includes troubleshooting and field verification of calibration of your E<sup>2</sup>T Quasar Flare Monitoring Systems.

## Introduction

**This document provides an overview of the field calibration verification service offering for the E<sup>2</sup>T Quasar family.**

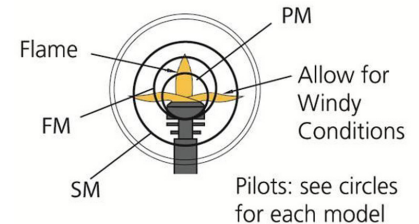
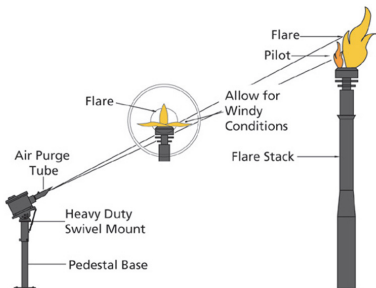
The E<sup>2</sup>T Quasar 2 and Quasar 8100 series are monitoring and detection instruments designed for continuous duty flare monitoring. Continuous monitoring of pilot flames and flared gases is critical to ensure that the gases will be ignited for proper compliance with government-set pilot status recording requirements. Thermocouple failure, flame movement, varying luminosity, and adverse climatic conditions are just a few of the obstacles that have to be overcome to gain long-term monitoring reliability without false alarms.

Periodic maintenance of Quasar systems is essential to ensure correct alignment, clean optics, and proper functionality. LumaSense can design a monthly, quarterly, or semiannual service that is tailored to your operations and specific needs.

The benefits are to prevent potential problems, assure optimal performance, avoid costly shutdowns, and maintain safe operations



# Service Description



## OPTICAL AND PURGE CHECK

A clear optical path is critical to ensure correct detection of flames.

Flame-path windows and o-rings will be inspected, and cleaned or replaced as necessary. Instrument alignment and focus will be adjusted. Gain and time delay settings as well as mA output will be checked.

It is important that the purge rate is correct for the sight tube to keep the window clean. The purge rate will be checked and adjusted to ensure proper flow.

## CURRENT OUTPUT AND CHOPPER MOTOR CHECK

The Quasar chassis or electronics module will be removed from the EXP housing and taken to a clean work area to be thoroughly checked and tested.

Chopper motor failure is the leading cause of failure in Quasars. All dc voltages will be checked and the chopper motor will be inspected. Chopper motor replacement will be recommended if warranted. The correct chopper motor speed will be verified. The mA output will be measured and adjusted to spec. The NO and NC relay contacts will be checked to ensure reliable switching.

## FINAL ALIGNMENT, FOCUS, AND ADJUSTMENTS

When the Quasar module is re-installed in the housing, it will be properly aligned, focused, and aimed at the target. Finally, the gain and time delay will be properly adjusted and the Quasar will be given a final test.



## Summary

A service report will be generated for each instrument showing the data collected, adjustments made, and any recommended action to be taken.

The benefits include: preventing potential problems, ensuring optimal performance, and avoiding costly shutdowns.



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## ABOUT ADVANCED ENERGY

Advanced Energy (AE) has devoted more than three decades to perfecting power for its global customers. AE designs and manufactures highly engineered, precision power conversion, measurement and control solutions for mission-critical applications and processes.

AE's power solutions enable customer innovation in complex semiconductor and industrial thin film plasma manufacturing processes, demanding high and low voltage applications, and temperature-critical thermal processes.

With deep applications know-how and responsive service and support across the globe, AE builds collaborative partnerships to meet rapid technological developments, propel growth for its customers and power the future of technology.

PRECISION | POWER | PERFORMANCE

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