



SOLAR PHOTOVOLTAIC INDUSTRY

SOLAR PV THIN FILM IN-LINE METROLOGY SYSTEM

The Situation

A leading thin film solar manufacturer needed to implement an inline metrology system to monitor their deposition process. The client's manufacturing process was highly automated requiring the metrology system solution to be seamlessly integrated and capable of sustaining high throughputs.



Senior Technician Performing Metrology Head Alignments

The Challenge

The client was ramping their production quickly to respond to strong market demand. It was

critical that the metrology system be brought on-line immediately to address process control goals, yet the client's equipment engineering team needed to focus on many other critical production issues. Given the competing priorities, they could not finish the metrology system in the timeframe required by their management.

The Solution

Owens Design worked quickly with the client to takeover complete responsibility for the metrology system.

The metrology system consisted of precision staging to position the metrology head, conveyance to move the panel into and out of the measurement area, environmental control, and power/control sub-systems.

Owens Design completed the metrology system design, built the unit, resolved performance



Process control was critical to meet our client's aggressive yield enhancement objectives

issues, and supported the integration with the manufacturing line. The system was installed on schedule in time to support the client's production ramp.