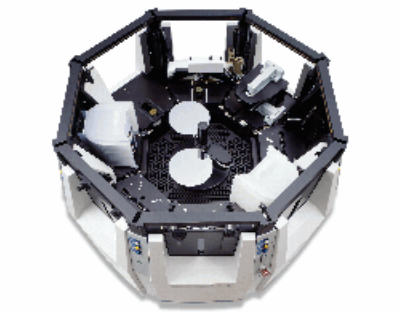
ADE 9300 UltraScan



- *UltraScan 9300 automated wafer thickness metrology system*

Product Highlights:

- Next generation standard for 180 nm semiconductor wafers
- Edge exclusion to 1 mm
- E-Plus technology emulation mode
- Configurable multi-cassette sorting capabilities

ADE's UltraScan 9300 with E-Squared Gage technology is the next generation industry standard for wafer geometry characterization and sorting. The 9300 meets SIA performance requirements for 200 mm wafer processing. With available resistivity and typing gages, the 9300 is well suited for production environments. The high data density, non-contact measurements and fully automated operation make the 9300 ideal for checking outgoing and incoming wafer quality. High data density, non-contact measurements and fully automated operation makes the 9800 ideal for checking outgoing wafer quality at silicon manufacturers. It is also useful for **incoming wafer quality** and photolithography for IC fabs.

Silicon Manufacturing

With both E Squared and E-Plus Emulation modes, the 9300 can characterize wafers for 130 nm and greater line widths. The broad range of capabilities, including 1 mm edge exclusion, make the 9300 a versatile and expandable tool. Five configurable cassette stations enable the 9300 to sort wafers based on a number of user defined parameters including thickness, shape and site flatness. See also the 9350 UltraScan for a configuration with **two cassette stations**. Resistivity and type gauges can be added to completely characterize the dimensional and base electrical properties of outgoing material. The tighter accuracy and repeatability of the 9300 translates into higher yields at final inspection. With features such as automatic thickness calibration and storable calibration parameters, cost of ownership is reduced.

Incoming Quality Control

The clustered design of the 9300 enables sampling of wafer dimension, shape, flatness, resistivity and type in one metrology step. A SECS interface is available to support factory automation. The 9300 can identify material out of the specified range, before it causes yield loss in downstream processes. Supplier quality can be checked and monitored, and the worldwide correlation capability of ADE equipment eliminates the risk of inappropriate material acceptance or rejection.