



News Release

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Full Automatic Wafer Laser Dicing Machine (MAHOHDICING MACHINE) Received "Japan Machinery Federation President's Award" at 2006FY 27th Excellent Energy Conserving Awards

Tokyo Seimitsu Co., Ltd. (President, C.E.O. & C.O.O.: Sadakatsu Suzuki) was recently awarded the "Japan Machinery Federation President's Award" for its full automatic wafer laser dicing machine "MAHOHDICING MACHINE" at the 2006FY 27th Excellent Energy Conserving Machinery Awards hosted by the Japan Machinery Federation.

This award was started as a voluntary activity by the machine industry in 1980FY in response to the government's energy saving promotion initiative. The purpose is to commend people, companies and other organizations who have developed industrial machines with significant energy saving performance or put them into practical use.

The dicing process is one of the semiconductor device manufacturing processes, which cuts out each device from a wafer. Conventionally, the process consumes a large amount of pure water to remove any heat and particles generated by wafer abrasion by the fast rotating diamond whetstone. To the contrary, ACCRETECH's full automatic wafer laser dicing machine "MAHOHDICING MACHINE" eliminates the need for pure water to discharge cut particles, cool the whetstone, and clean products after processing. It is because the machine uses no fast rotation spindle but adopts the laser light that is excellent in the absorption efficiency for semiconductor silicon materials as well as optimizes the radiation conditions to process dicing. This leads to significant reduction of electric power and pure water consumption.

Although the general grinding process by diamond whetstone generates silicon device cut particles and waste fluid containing those particles and therefore requires certain post treatments, our new machine will not discharge any particles and waste fluid because it uses no grinding process. It provides the users an opportunity to pursue zero emission in their production facilities.

Moreover, the machine minimizes the progressive distortion that is an inherent disadvantage of the grinding process. Its transverse intensity is proved excellent particularly for thin semiconductor devices. This means that the cut margin is minimized, any cut waste from a device manufacturing process is reduced, and semiconductor materials can be utilized more efficiently.

The award mentioned above is a proof of highly positive evaluation to the machine's energy saving performance, environment friendliness and excellent economy. ACCRETECH will continuously develop more energy saving and environmentally friendly equipment.