

**Dainippon Screen Introduces
a New Transport Mechanism and Drying Technologies.
- The Model FC-3100 Wet Station offers
industry-leading throughput and improved yield. -**

The Semiconductor Company (President: Eiji Kakiuchi) of Dainippon Screen Mfg. Co., Ltd. (Headquarters: Kyoto, Japan) has introduced a new transport mechanism and a new drying system. The company's Model FC-3100, a 300-mm Batch-Type^{*1} Automated Wet Station, now incorporates these two innovative technologies. As a result, this equipment can now process up to 650 wafers per hour, the fastest rate in the industry.^{*2}

Recently, the semiconductor industry has been accelerating the pace of miniaturization efforts. One example of this progress can be seen in the all-out development of devices beyond 45 nanometers technology node (one billionth of a meter). We expect chip manufacturers to eventually invest more aggressively in achieving volume production of nano-devices. For this reason, chip manufacturers must develop technologies that provide improved cleaning performance compatible with nano-device processes, as well as higher throughput.

The new transport mechanism adopted by the Model FC-3100 wet station dramatically reduces wafer transport time in the wet station by minimizing wait time, among other innovations. As a result, it achieves a cleaning rate exceeding 650 wafers per hour, which represents approximate 40-percent increase compared with conventional equipment and contributes to improved throughput. At the same time, the company's new drying system (HiLPD),^{*3} a high-performance low-pressure dryer built into the wet station's drying module, adopts another new technology to increase the concentration of the isopropyl alcohol (IPA) introduced into the process bath. By eliminating stains on the wafer surface and circuit-pattern collapse through reduced drying time, the module not only accommodates nano-device processes but also contributes to yield improvements.

The Model FC-3100 incorporating these innovative technologies will be put on the market in December 2007. Dainippon Screen will continue to enhance the competitive advantage of this 300-mm automated wet station — which has already garnered a global market share exceeding 50 percent — by increasing both the throughput and process performance in order to further grow its global market share. Moreover, the company intends to strengthen its position as a manufacturer of global-standard semiconductor wet stations and drive the growth of the semiconductor industry by optimizing its processing systems and improving the overall performance of the station.

*1 Batch-Type
Capable of processing a batch of wafers at one time

*2 as of November 2007

*3 Optional

- * Detailed information on the Model FC-3100 Batch-Type Automated Wet Station incorporating these new technologies will be on display in our booth at SEMICON Japan 2007 at Makuhari Messe, in Chiba, Japan on December 5 to 7 (Wed.–Fri.).



FC-3100

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