Dainippon Screen Announces a New 300mm Single-Wafer Cleaning System
MP-3000CB for BEOL Process

Kyoto, Japan, September 13, 2002 ---- Dainippon Screen Mfg. Co., Ltd., (Headquarters: Kyoto; Japan/President: Akira Ishida) announced that the company has developed a single-wafer cleaning system for 300mm wafers, MP-3000CB, which support leading edge Copper (Cu) interconnect cleaning applications in the back-end of the line (BEOL) process.

This system is designed specifically for cleaning the back surface and beveled edge of wafers after Cu processing.

The MP-3000CB addresses two prevalent trends in the IC industry. The first is the shift towards 300mm wafer diameter, which boosts the productivity of IC fabs. The second is the adoption of Cu interconnect which, by virtue of the lower resistance of Cu compared to aluminum, enables IC manufacturers to build chips capable of higher processing speeds. Chip fabrication processes that use Cu interconnect demand higher levels of cleanliness for the back surface and beveled edge of the wafer.

The MP-3000CB process tool, an enhanced version of the MP-3000 released in November 2000, answers the demands for higher cleanliness in next generation device production. It effectively cleans the back surface and bevel edge of wafers through the use of a modified wafer holding mechanism. Moreover, the bevel etch width and the area around the perimeter of the wafer rinsed by DI Water can be varied by changing wafer rotation speed. Having the ability to rinse the wafer at a width slightly greater than the bevel width, facilitates the removal of all residual chemicals from the bevel edge.