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Dainippon Screen developed semiconductor production equipment MP-2000BEOL for wiring process

Dainippon Screen Mfg. Co., Ltd., (Headquarters: Kyoto; Japan/President: Akira Ishida) has developed a single-wafer cleaning system, MP-2000BEOL for 200mm wafers, which support a host of leading edge interconnect cleaning process applications.

MP-2000BEOL is a new version of the previously released MP2000 (released in December 1999) especially developed for interconnect process. The equipment embodies special features for cleaning wafer backsides and bevel etching, specifically for Copper (Cu) interconnect.

Cu interconnect is rapidly becoming a major circuit advancement due to the requirements of higher levels of integration. As interconnect features reduce in size, copper's lower resistivity is needed to avoid longer signal delay times which would result if aluminum were used. In order to integrate copper into the IC process, however, a new and more rigorously controlled cleaning strategy must be employed. For such demands, the chambers of MP-2000 are modified in order to clean wafer backsides and beveling wafer edges by dispensing etchant and DI water in a sequential order. The cleaning zone on the wafer's surface can be adjusted by recipe on the MP-2000.

MP-2000BEOL also offers advantages, similar to the MP-2000, such as the single chamber processing system, which accomplishes wafer cleaning with a variety of chemicals, rinsing and drying, in a single chamber. This system decreases the possibility of air-borne contamination and better manages the amount of DI water used for rinsing.



MP-2000BEOL