A spin coating apparatus for use in applying a coating solution in film form to an upper surface of a substrate. This apparatus includes a spinning table for supporting and spinning the substrate in horizontal posture, an upper spinning plate disposed parallel to and substantially slightly spaced from the upper surface of the substrate supported on the spinning table, and having an opening formed substantially centrally thereof, the upper spinning plate being adapted to spin concurrently with the spinning table, and a cleaning nozzle vertically movably mounted in the opening of the upper spinning plate. The cleaning nozzle is lowered when cleaning a lower surface of the upper spinning plate, so that a cleaning liquid outlet port formed in a lower end region of the cleaning nozzle is exposed below the lower surface of the rotary plate. In this state, a cleaning liquid is directed to the lower surface of the upper spinning plate being spinning to clean the lower surface thereof.