ABSTRACT

A sheet sticking apparatus 10 comprises a sheet feed-out unit 12 that feeds out an adhesive sheet S to a position facing a surface of a semiconductor wafer W and a press roller 14 that presses the adhesive sheet S to stick the adhesive sheet S onto the wafer W. The sheet feed-out unit 12 includes a tension measuring means 35 for measuring a tension of the adhesive sheet S between the sheet feed-out unit 12 and the press roller 14 and a sticking angle maintaining means 37 provided with a feed-out head 49 for maintaining a sticking angle θ. After measuring and adjusting the tension immediately before sticking the adhesive sheet S, the feed-out head 49 is lowered in proportion to the movement amount of the press roller 14, thereby the sticking angle θ is maintained, and thus the tension is maintained at a constant level.