

ABSTRACT

5 A SYSTEM AND METHOD FOR IMPROVED DIE FEED USING DUAL EJECTORS WITH ORIENTATION CORRECTION

A first embodiment of the invention is an improved die feed system with two ejectors. The control unit aligns at least one wafer image with a die model and identifies a set of coordinates for each die, wherein the set of coordinates includes for each die an x-
10 coordinate, a y-coordinate, and an angle theta. The control unit organizes the die into a series of pairs, each pair including a first die and a second die. In a first cycle, a wafer stage is indexed to place a first pepper pot below the first die of each pair according to the x- and y-coordinates of the first die and rotate the first pepper pot to the angle theta of the first die with a rotation unit, then pick the first die by action of the first ejector
15 and the first arm. In a second cycle, the wafer stage is indexed to place the second pepper pot below the second die of each pair according to the x- and y-coordinates of the second die and rotate the second pepper pot to the angle theta of the second die with the rotation unit, then pick the second die by action of the second ejector and the second arm. The first and second cycles are offset in phase for increased throughput of
20 the system. The first and second cycles are repeated for the series of pairs of dies completion. A second embodiment of the invention is a method of improved die feed using two ejectors.

25 **FIG. 4A**