Claims

1. A wafer handler comprising:

a wafer loading station (3) for loading a wafer (1) mounted on a tacky film (2);

a tensioner (30) for tensioning the tacky film;

a picking module (66) for successively picking a plurality of devices from said wafer;

a vision system (5, 50) with one or several cameras (50) for capturing a first image of said wafer or of portions of said wafer, said first image comprising a plurality of devices, wherein said vision system is arranged for determining from said first image the individual position of a plurality of devices, and

wherein the wafer handle further comprises an additional camera (63) positioned proximate to said picking module (66) and arranged for capturing an second image of a device to be picked, ~~wherein the second image is used for fine adjustment of the wafer so that the device to be picked is centered under the picking module~~ wherein the vision system is configured to use the first image to move the wafer in a first movement so that a device to be picked is moved towards a position under the pick-up module, and, to use the second image to move the wafer in a second movement which is finer than said first movement, for fine adjustment of the wafer, so that the device to be picked is centered under the picking module;

characterised in that the vision system (5, 50) is further configured to capture an image of the wafer after the picking module (66) has picked one or more devices from the wafer, and wherein the wafer handler further comprises a processor which is configured to, compare the captured image of the wafer to an expected result to identify if all devices, which should have been picked by the picking module (66)

from the wafer, have been picked; and determine a number of error made by the picking module (66) based on the comparison between the captured image to an expected result.

~~2. The wafer handler of claim 1, wherein said vision system is arranged for determining from said first image the individual position of a plurality of devices in said wafer.~~

~~3.~~2. The wafer handler of claim ~~2~~1, wherein said vision system is arranged for determining from said first image the individual orientation of a plurality of devices in said wafer.

~~4.~~3. The wafer handler of ~~one of the~~ claim~~s~~ 1 ~~to 3~~or 2, wherein said picking module comprises:

one wafer displacement unit for displacing said wafer under said picking module (66), so as to center and align the device to pick under said picking module;

wherein a wafer location map generated by said vision system (5, 50) is used in the control of said wafer displacement unit.

4. The wafer handler of one of the claims 1 to ~~5~~3, comprising a code (16) on said tacky film (2) for identifying said wafer,

wherein said vision system is arranged for generating data depending on said code and on the individual position of each device on said tacky film,

wherein said data is used in the control of the displacements of said wafer. .

5. A method for handling wafers, comprising:

loading a wafer (1) mounted on a tacky film (2);

tensioning said tacky film;

capturing a first image of said wafer on said tacky film using a vision system (5,50) having one or more cameras (50), said first image displaying a plurality of devices (10);

using said first image in the control of successive picking of devices from said wafer by determining from said first image the individual position of a plurality of devices in said partial wafer, capturing a second image of the wafer ~~using the second image for fine adjustment of the wafer so that a device to be picked is centered under the picking module~~ using an additional camera (63),

using the first image to move the wafer in a first movement so that a device to be picked is moved towards a position under the pick-up module, and, using the second image to move the wafer in a second movement which is finer than said first movement, for fine adjustment of the wafer so that a device to be picked is centered under the picking module;

characterised in that the method further comprises the steps of,

capturing an image of the wafer after one or more devices have been picked from the wafer using the vision system (5,50; comparing the captured image of the wafer to an expected result to identify if all devices, which should have been picked from the wafer, have been picked; and

determining a number of errors made based on the comparison between the captured image and expected result.

6. The method of claim 5, further comprising determining from said first image the individual orientation of a plurality of devices in said wafer.

7. The method of claim 5 or 6, further comprising displacing said wafer under said picking module, so as to center and align the device to pick under a picking module(66);

wherein said first image is used in the control of said wafer displacement.

8. The method of one of the claims 5 to 7, further comprising generating data depending on a code on said tacky film and on the individual position of each device on said tacky film.

9. The method of claim 8, said data further indicating the overall position and/or orientation of said wafer on said tacky film.

10. The method of claim ~~8 or 9~~7, said data further indicating the position of the first pickable device on said tacky film.

11. The method of one of the claims 5 to 10, further comprising:

providing a wafer map that indicates a quality parameter of each device in said wafer,

generating data depending on said first image and on said wafer map for indicating the position, orientation, and quality parameter of each device.

12. The method of one of the claims 5 to 11, further comprising:

providing said tensioner with at least one marker;

capturing an image including said marker;

positioning said tensioner based on said image.