

CLAIMS

[Claim 1] ~~————— A polishing table replacement apparatus for removing a polishing table from a polishing apparatus, comprising:—~~

~~————— a crane configured to move the polishing table vertically and horizontally;—~~

~~————— a table stage on which the polishing table can be placed; and—~~

~~————— a table stage tilting mechanism configured to tilt the table stage.~~

[Claim 2] ~~————— The polishing table replacement apparatus according to claim 1, further comprising:—~~

~~————— a moving mechanism allowing an entirety of the polishing table replacement apparatus to move.~~

[Claim 3] ~~————— The polishing table replacement apparatus according to claim 1, further comprising:—~~

~~————— a joint portion which can be joined to the polishing apparatus.~~

[Claim 4] ~~————— The polishing table replacement apparatus according to any one of claims 1 through 3, wherein the crane includes a lift arm which is expandable and contractible horizontally, a table support tool for supporting the polishing table, and a vertically moving device configured to move the lift arm up and down, the table support tool being attached to a distal end of the lift arm.~~

[Claim 5] ~~————— A method of replacing a polishing table, comprising:—~~

~~————— elevating a polishing table;—~~

~~————— moving the elevated polishing table horizontally to remove the polishing table from a polishing apparatus;—~~

~~————— placing the polishing table onto a table stage; and—~~

~~————— tilting the table stage together with the polishing table.~~

[Claim 61] A component replacement apparatus for use in replacing a component of a semiconductor-device manufacturing machine, comprising:

a vertical frame which extends vertically;

5 a movable frame which is movable up and down along the vertical frame;

a joint member fixed to the movable frame, the joint member being configured to join the semiconductor-device manufacturing machine and the movable frame to each other;

10 a crane located below the movable frame and movable up and down along the vertical frame; and

an elevating device configured to elevate and lower the crane and the movable frame along the vertical frame.

[Claim 72] The component replacement apparatus according to claim 61, wherein:

the movable frame and the crane are movable up and down independently of each other;

the elevating device is joined to the crane; and

20 a frame stopper for limiting a downward movement of the movable frame is provided between the movable frame and the crane.

[Claim 83] The component replacement apparatus according to claim 72, further comprising:

a base frame fixed to a lower portion of the vertical frame; and

25 a crane stopper for limiting a downward movement of the crane, the crane stopper being located between the base frame and the crane.

[Claim 94] The component replacement apparatus according to claim 61, wherein

the crane includes a pivot shaft which extends vertically, a rail which can pivot horizontally about the pivot shaft, and a movable pulley block movable on the rail in a longitudinal direction of the rail.

5 | [Claim ~~40~~5] The component replacement apparatus according to claim ~~6~~1, wherein the joint member is removably fixed to the movable frame by a screw.