CLAIMS

1. A substrate processing apparatus in which transfer containers each containing a plurality of substrates are loaded and unloaded by a transfer system comprising a transfer path disposed above said substrate processing apparatus and a transfer apparatus that transfers the transfer containers, and in which the substrates in each transfer container are taken out from the transfer container by a substrate transfer mechanism and are then processed in a processing part, the substrate processing apparatus comprising:

a first load port on which a plurality of container tables are linearly arranged correspondingly to the transfer path, and to and from which the transfer containers are loaded and unloaded by the transfer apparatus;

a second load port that is arranged stepwise with respect to the first load port at a position higher than the first load port, on which a plurality of container tables are linearly arranged correspondingly to the transfer path, and to and from which the transfer containers are loaded and unloaded by the transfer apparatus;

a container table for transferring substrates on which the transfer container is placed for transferring the substrates in the transfer container between the container table and the substrate transfer mechanism;

a container storing part disposed rearward the first load port or the second load port, the container storing part including a plurality of container tables on which the plurality of transfer containers are stored; and

a container transfer mechanism configured to transfer the transfer container among the container tables of the first load port, the container tables of the second load

port, the container tables of the container storing part, and the container table for transferring substrates,

wherein the container tables of the first load port, the container tables of the second load port, the container tables of the container storing part, and the container table for transferring substrates are disposed at different positions, at which positions these container tables do not conflict with transfer pathways of the transfer containers moved by the container transfer mechanism.

2. The substrate processing apparatus according to claim 1, wherein:

the first load port and the second load port are disposed outside a housing defining an external body of the substrate processing apparatus, and the container storing part is disposed inside the honsing; and

the container transfer mechanism comprises:

an auxiliary transfer mechanism configured to transfer the transfer container between the first load port and an inside position in the housing opposed to the first load port through an opening of the housing; and

a main transfer mechanism configured to transfer the transfer container between the inside position and the container table for transferring substrates, and to transfer the transfer container between the respective container tables of the second load port and the container storing part, and the container table for transferring substrates.

3. The substrate processing apparatus according to claim 2, wherein

the auxiliary transfer mechanism includes a mechanism for horizontally moving the container table of the first load port.

4. The substrate processing apparatus according to claim 2, further comprising a shutter for closing the opening, except when the transfer container is moved between the first load port and an area within the housing.

CLAIMS

1. A substrate processing apparatus in which a transfer container containing a plurality of substrates is loaded and unloaded by a transfer system comprising: a first transfer path and a second transfer path whose lateral positions differ from each other above the substrate processing apparatus; and a first transfer apparatus and a second transfer apparatus which transfer the transfer container along the first transfer path and the second transfer path, respectively; and the substrates in the transfer container are drawn from the transfer container by a substrate transfer mechanism and are then processed in a processing part, the substrate processing apparatus comprising:

a first load port on which a plurality of container tables are linearly arranged correspondingly to the first transfer path, wherein the transfer container is loaded to and unloaded by the first transfer apparatus;

a second load port that is arranged stepwise with respect to the first load port at a position higher than the first load port, on which a plurality of container tables are linearly arranged correspondingly to the second transfer path, wherein the transfer container is loaded to and unloaded by the second transfer apparatus;

a container table for transporting substrates on which the transfer container is placed for transporting the substrates in the transfer container between the container table and the substrate transfer mechanism;

a container storing part disposed rearward the first load port and the second load port, the container storing part including a plurality of container tables on which the plurality of transfer containers are stored; and

a container transfer mechanism configured to transfer the transfer container among the container tables of the first load port, the container tables of the second load port, the container tables of the container storing part, and the container table for transporting substrates.

2. The substrate processing apparatus according to claim 1, wherein:

the first load port and the second load port are disposed outside a housing defining an external body of the substrate processing apparatus, and the container storing part is disposed inside the housing; and

the container transfer mechanism comprises:

an auxiliary transfer mechanism configured to transfer the transfer container between the first load port and an inside position in the housing opposed to the first load port through an opening of the housing; and

a main transfer mechanism configured to transfer the transfer container between the inside position and the container table for transporting substrates, and to transfer the transfer container between the respective container tables of the second load port and the container storing part, and the container table for transporting substrates.

3. The substrate processing apparatus according to claim 2, wherein

the auxiliary transfer mechanism includes a mechanism for horizontally moving the container table of the first load port.

4. The substrate processing apparatus according to claim 2, further comprising a shutter for closing the opening, except when the transfer container is moved between the first load port and an area within the housing.

5. The substrate processing apparatus according to claim 1, wherein

one of the first load port and the second load port is exclusively used for loading the transfer container, and the other thereof is exclusively used for unloading the transfer container.

6. The substrate processing apparatus according to claim 1, wherein

the first transfer path used in the transfer system is disposed on a floor surface on which the wafer processing apparatus is installed, not being disposed above the substrate processing apparatus.