CLAIMS

1. A substrate processing apparatus comprising a loading and unloading part provided to load and unload a transfer container of a plurality of transfer containers containing substrates, and a processing part provided to perform a treatment to a substrate of said substrates removed from the transfer container loaded into the loading and unloading part, said loading and unloading part including:

an outer housing of said substrate processing apparatus, wherein the outer housing has a first face facing forward and provided therein with at least one first opening corresponding to a first load port to allow a transfer container of said plurality of transfer containers to be transferred between the first load port and an interior of the outer housing through the first opening, wherein the outer housing also has a second face facing forward and provided therein with at least one second opening corresponding to a second load port to allow a transfer container of said plurality of transfer containers to be transferred between the second load port and the interior of the outer housing through the second opening, and wherein the second face is disposed behind the first face and at a level higher than the first face;

the first load port arranged outside the outer housing and having a plurality of first container tables each for placing thereon a transfer container of said plurality of transfer containers, wherein the first container tables are horizontally arrayed in a first row;

the second load port arranged outside the outer housing and having a plurality of second container tables each for placing thereon a transfer container of said plurality of transfer containers, wherein the second container tables are horizontally arrayed in a second row, and the second row of the second container tables is disposed in parallel with the first row of the first container tables, behind the first row of the first container tables, and at a level higher than the first row of the first container tables;

a table moving mechanism configured to horizontally move each of the first container tables between a front position where the first container table is in the first load port and a rear position where the first container table is located within the outer housing;

a third container table arranged in the outer housing for placing thereon a transfer container of said plurality of transfer containers;

a substrate transfer mechanism configured to remove a substrate of said substrates to be subjected to the treatment in the processing part from a transfer container of said plurality of transfer containers placed on the third container table;

a container storing part disposed in the outer housing and provided therein with a plurality of fourth container tables each for placing thereon a transfer container of said plurality of transfer containers, wherein some of the fourth container tables are located vertically between the first container tables in their rear positions and the second container tables; and

a container transfer mechanism configured to place and remove a transfer container of said plurality of transfer containers to and from the first, second, third and fourth container tables to transfer the transfer container of said plurality of transfer containers between the tables, which are located in different positions, respectively.

2. The substrate processing apparatus according to claim 1, further comprising at least one shutter that each closes said at least one first opening except when a transfer container of said plurality of transfer containers is moved between the first load port and an area within the housing.

3. 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 a transfer container of said plurality of transfer containers, and the other thereof is exclusively used for unloading a transfer container of said plurality of transfer containers.