(TRANSLATION)

Amendment of Claims under PCT Article 19(1)

What is claimed is:

1. (Currently amended) An apparatus for stocking and purging a wafer at a ceiling, the apparatus comprising:

a rail that is formed so as to be installed on a ceiling to guide a vehicle;

a stock system that is formed so as to be installed on the ceiling and is formed so as to receive a container, which contains wafers, from the vehicle and stock the container, and that includes a supply nozzle and a discharge nozzle that are formed so as to communicate with the inside of the container; and

a purge assembly that includes a supply unit that communicates with the container through the supply nozzle and supplies the gas to be used for purging of the wafers, and a discharge unit that communicates with the container through the discharge nozzle and recovers the gas, which is used for purging of the wafers, into a recovering tank.

2. The apparatus according to claim 1,

wherein the stock system includes

a main body;

a rack that is installed on the main body and is formed so as to support the container; and

fastening units that are installed on the main body and are formed so that the main body is fastened to the ceiling.

3. The apparatus according to claim 2,

wherein the main body includes

a bottom frame on which the rack is installed; and

a pair of side wall frames that are joined to both end portions of the bottom frame and includes the fastening units installed at free ends of the side wall frames.

4. (Cancelled)

5. (Currently amended) The apparatus according to claim 2,

wherein the supply nozzle and the discharge nozzle are installed on the rack, and

each of the supply unit and the discharge unit includes

a main pipe that is formed so as to extend along the rail and is formed so that the gas flows in the main pipe; and

a sub-pipe that communicates with the main pipe and is connected to the supply nozzle or the discharge nozzle.

6. The apparatus according to claim 5,

wherein the sub-pipe includes

a first sub-pipe that communicates with the main pipe; and

a second sub-pipe that connects the first sub-pipe with the supply nozzle or the discharge nozzle and has a flow cross-sectional area smaller than the flow cross-sectional area of the first sub-pipe.

7. The apparatus according to claim 6,

wherein the supply unit further includes

a supply valve that is installed on the second sub-pipe of the supply unit and is formed so as to open and close the second sub-pipe of the supply unit; and

a supply flow meter that is installed on the second sub-pipe of the supply unit so as to be positioned between the supply valve and the supply nozzle and is formed so as to measure a flow rate of the gas flowing in the rack.

8. The apparatus according to claim 7,

wherein the supply unit further includes a gas filter that is installed on the second sub-pipe of the supply unit so as to be positioned between the supply flow meter and the supply nozzle of the rack.

9. The apparatus according to claim 7,

wherein the discharge unit includes

a discharge valve that is installed on the

second sub-pipe of the discharge unit and is formed so as to open and close the second sub-pipe of the discharge unit; and

a discharge flow meter that is installed on the second sub-pipe of the discharge unit so as to be positioned between the discharge valve and the discharge nozzle and is formed so as to measure a flow rate of the gas flowing out of the rack.

10. The apparatus according to claim 9,

wherein the purge assembly further includes a control unit that is connected to the supply valve and the discharge valve and controls the opening and closing of each of the supply valve and the discharge valve.

11. The apparatus according to claim 10,

wherein the control unit is formed so as to open and close the supply valve or the discharge valve on the basis of a difference between a supply flow rate that is measured by the supply flow meter and a discharge flow rate that is measured by the discharge flow meter.

12. The apparatus according to claim 10,

wherein the rack further includes a container detecting sensor detecting the presence of the container, and

the control unit is formed so as to open and close the supply valve or the discharge valve on the basis of a

detection result of the container detecting sensor.

13. (Currently amended) An apparatus for stocking and purging a wafer at a ceiling, the apparatus comprising:

a rail that is installed on a ceiling;

a vehicle that is formed so as to move along the rail and is formed so that a container containing wafers therein is loaded on the vehicle;

a plurality of stock systems that are installed on the ceiling so as to be positioned next to the rail and are formed so as to receive the container from the vehicle and stock the container, and that includes a supply nozzle and a discharge nozzle that are formed so as to communicate with the inside of the container; and

a purge assembly that includes a supply unit that communicates with the container through the supply nozzle and supplies the gas to be used for purging of the wafers, and a discharge unit that communicates with the container through the discharge nozzle and recovers the gas, which is used for purging of the wafers, into a recovering tank.

14. (Currently amended) The apparatus according to claim 13,

wherein the stock system includes

a bottom frame;

a pair of side wall frames that are joined to both end portions of the bottom frame and are formed so as

to be positioned between the bottom frame and the ceiling; and

a rack that is installed on the bottom frame so as to support the container and on which the supply nozzle and the discharge nozzle are installed.

15. (Currently amended) The apparatus according to claim 14,

wherein the supply unit includes a supply valve formed so as to start or stop supplying the gas;

the discharge unit includes a discharge valve formed so as to start or stop discharging the gas; and

the purge assembly further includes a control unit that controls an operation of the supply valve or the discharge valve on the basis of the amount of the gas present in the container.

What is claimed is:

1. An apparatus for stocking and purging a wafer at a ceiling, the apparatus comprising: a rail that is formed so as to be installed on a ceiling to guide a vehicle; a stock system that is formed so as to be installed on the ceiling and is formed so as to receive a container, which contains wafers, from the vehicle and stock the container; and a purge assembly that is installed so as to communicate with the container through the stock system and is formed so as to purge the wafers, which are contained in the container, with gas; wherein the purge assembly includes a supply unit that is formed so as to supply the gas into the container; and a discharge unit that is formed so as to discharge the gas, which is supplied into the container, to the outside; and wherein the rack includes a supply nozzle and a discharge nozzle that are formed so as to communicate with the inside of the container, and each of the supply unit and the discharge unit includes a main pipe that is formed so as to extend along the rail and is formed so that the gas flows in the main pipe; and a sub-pipe that communicates with the main pipe and is connected to the supply nozzle or the discharge nozzle.

2. The apparatus according to claim 1, wherein the main body includes a bottom frame on which the rack

is installed; and a pair of side wall frames that are joined to both end portions of the bottom frame and includes the fastening units installed at free ends of the side wall frames.

3. The apparatus according to claim 1, wherein the sub-pipe includes a first sub-pipe that communicates with the main pipe; and a second sub-pipe that connects the first sub-pipe with the supply nozzle or the discharge nozzle and has a flow

cross-sectional area smaller than the flow cross-sectional area of the first sub-pipe.

4. The apparatus according to claim 3, wherein the supply unit further includes a supply valve that is installed on the second sub-pipe of the supply unit and is formed so as to open and close the second sub-pipe of the supply unit; and a supply flow meter that is installed on the second sub-pipe of the supply unit so as to be positioned between the supply valve and the supply nozzle and is formed so as to measure a flow rate of the gas flowing in the rack.

5. The apparatus according to claim 4, wherein the supply unit further includes a gas filter that is installed on the second sub-pipe of the supply unit so as to be positioned between the supply flow meter and the supply nozzle of the rack.

6. The apparatus according to claim 4, wherein the discharge unit includes a discharge valve that is installed on the second sub-pipe of the discharge unit and is formed so as to open and close the second sub-pipe of the discharge unit; and a discharge flow meter that is installed on the second sub-pipe of the discharge unit so as to be positioned between the discharge valve and the discharge nozzle and is formed so as to measure a flow rate of the gas flowing out of the rack.

7. The apparatus according to claim 6, wherein the purge assembly further includes a control unit that is connected to the supply valve and the discharge valve and controls the opening and closing of each of the supply valve and the discharge valve.

8. The apparatus according to claim 7, wherein the control unit is formed so as to open and close the supply valve or the

discharge valve on the basis of a difference between a supply flow rate that is measured by the supply flow meter and a discharge flow rate that is measured by the discharge flow meter.

9. The apparatus according to claim 7, wherein the rack further includes a container detecting sensor detecting the presence of the container, and the control unit is formed so as to open and close the supply valve or the discharge valve on the basis of a detection result of the container detecting sensor.