WHAT IS CLAIMED IS:

1. A carrier device, comprising:

a body;

a rotational part provided to be rotatable relative to the body;

an arm supported on the rotational part;

an end effector provided in a leading end portion of the arm and configured to hold a work;

a gas supply unit configured to supply a gas to an arm-side internal space provided in an arm-side base portion of the end effector and/or in the leading end portion of the arm; and

an exhaust unit provided in a body-side internal space that communicates with the arm-side internal space and configured to discharge the gas in the arm-side internal space and/or in the body-side internal space.

2. The carrier device according to claim 1, further comprising

a supply amount controller configured to control a supply amount of the gas that is to be supplied to the arm-side internal space, wherein

the supply amount controller is configured to perform on/off control of a supply of the gas to the arm-side internal space and/or control of the supply amount of the gas to the arm-side internal space, according to an atmospheric pressure of an external environment of the carrier device or a discharge amount by the exhaust unit.

3. The carrier device according to either claim 1 or claim 2,

wherein the body is configured to move in a vertical direction and rotate in a horizontal direction by a lifting device and a rotating device.

4. The carrier device according to any one of claims 1 to 3,

wherein the exhaust unit is provided with an ejector that is in fluid connection with the gas supply unit.

5. The carrier device according to any one of claims 1 to 4,

wherein the end effector includes a chuck mechanism configured to press and hold the work by a pressing member that is moved by a cylinder, and

the gas supply unit supplies part of the gas that is to be supplied to the cylinder, to the arm-side internal space.

6. The carrier device according to any one of claims 1 to 5,

wherein the gas supply unit includes a flexible pipe that is placed in the carrier device.

7. The carrier device according to any one of claims 1 to 6,

wherein the carrier device ~~conveys~~is capable of conveying the work in a wet environment.

8. The carrier device according to any one of claims 1 to 7,

wherein the gas supply unit supplies a gas including dry air and/or nitrogen.

9. The carrier device according to any one of claims 1 to 8,

wherein the carrier device is capable of being placed in a work processing apparatus to be in fluid connection with a utility line of the work processing apparatus, and

wherein the gas supply unit is capable of receiving~~receives~~ a supply of the gas from the utility line.

10. The carrier device according to any one of claims 1 to 9,

wherein the carrier device is a multi-joint robot that includes the end effector and at least one arm unit connected with each other and that is configured such that an internal space of the end effector and an internal space of the at least one arm unit are in fluid communication with each other.

11. A work processing apparatus, comprising:

the carrier device according to any one of claims 1 to 10; and

a work processing module configured to process the work conveyed by the carrier device.

12. The work processing apparatus according to claim 11,

wherein the carrier device ~~transfers~~is capable of transferring the work in a wet environment to/from the work processing module that performs work processing.

13. A control method of a carrier device of a work,

wherein the carrier device comprises a body; a rotational part provided to be rotatable relative to the body; an arm supported on the rotational part; and an end effector provided in a leading end portion of the arm and configured to hold a work;~~,~~ a gas supply unit configured to supply a gas to an arm-side internal space provided in an arm-side base portion of the end effector and/or in the leading end portion of the arm; a supply amount controller configured to control a supply amount of the gas that is to be supplied to the arm-side internal space;~~,~~ and an exhaust unit configured to discharge the gas in the arm-side internal space and/or in a body-side internal space that communicates with the arm-side internal space,

the control method comprising:

a gas supply process ~~of~~by the gas supply unit supplying a gas to ~~an~~the arm-side internal space provided in ~~an~~the arm-side base portion of the end effector and/or in the leading end portion of the arm;

a supply amount control process ~~of~~by the supply amount controller controlling a supply amount of the gas that is to be supplied to the arm-side internal space; and

an exhaust process ~~of~~by the exhaust unit discharging the gas in the arm-side internal space and/or ~~a~~the body-side internal space that communicates with the arm-side internal space,

wherein the supply amount control process comprises performing on/off control of a supply of the gas to the arm-side internal space and/or control of the supply amount of the gas to the arm-side internal space, according to an atmospheric pressure of an external environment of the carrier device or a discharge amount in the exhaust process.

14. A non-volatile storage medium configured to store a program that operates a computer to perform a control method of a carrier device of a work,

wherein the carrier device comprises a body; a rotational part provided to be rotatable relative to the body; an arm supported on the rotational part; an end effector provided in a leading end portion of the arm and configured to hold a work; a gas supply unit configured to supply a gas to an arm-side internal space provided in an arm-side base portion of the end effector and/or in the leading end portion of the arm; a supply amount controller

configured to control a supply amount of the gas that is to be supplied to the arm-side internal space; and an exhaust unit configured to discharge the gas in the arm-side internal space and/or in a body-side internal space that communicates with the arm-side internal space,

the program comprises a process of performing on/off control of a supply of the gas to the arm-side internal space and/or control of the supply amount of the gas to the arm-side internal space, according to an atmospheric pressure of an external environment of the carrier device or a discharge amount by the exhaust unit.