CLAIMS

1. A gas purge device positioning a container and comprising a nozzle to introduce a purge gas into a gas inlet part, made of an elastic material, provided on a bottom of the container, and provided with a circular bottom surface and a gas inlet hole in a center of the bottom surface:

wherein the nozzle is provided with a planar top end surface having a size equal to or greater than that of the bottom surface of the gas inlet part and a nozzle hole located in a center of the top end surface and having a size equal to or smaller than that of the gas inlet hole of the container, and

wherein the top end surface is roughened or made of a lubricative material and thereby supports the gas inlet part slidably.

2 The gas purge device according to claim 1,

wherein the top end surface has a diameter equal to or greater than that of the gas inlet part, and the nozzle hole has a diameter equal to or smaller than that of the gas inlet hole.

3. The gas purge device according to claim 2,

wherein the top end surface is configured to be made in contact with an entire surface of the gas inlet part except for the gas inlet hole, to support the gas inlet part, to apply a uniform contact pressure from the nozzle to the entire surface of the gas inlet part except for the gas inlet hole, to make the gas inlet part slidable with respect to the top end surface, and thereby to prevent adhesion between the gas inlet part and the top end surface for the positioning of the container.

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

wherein the top end surface is roughened.

5. The gas purge device according to any one of claims 1 to 4, further comprising:

a rack support; and

positioning members provided on the rack support,

wherein the positioning members are configured to make the container positioned on the rack support, and

wherein the nozzle is fixed on the rack support at a fixed height so as not to move up and down.

6. A gas purge method positioning a container and introducing a purge gas from a nozzle into a gas inlet part, made of an elastic material, provided on a bottom of the container, and provided with a circular bottom surface and a gas inlet hole in a center of the bottom surface:

wherein the nozzle has a planar top end surface having a size equal to or greater than that of the bottom surface of the gas inlet part and a nozzle hole located in a center of the top end surface and having a size equal to or smaller than that of the gas inlet hole of the container, and thereby the nozzle applies a contact pressure to an entire surface of the gas inlet part except for the gas inlet hole, and

wherein the top end surface is roughened or made of a lubricative material and thereby the gas inlet part is made slidable with respect to the top end surface.

7. The gas purge method according to claim 6,

wherein the top end surface is made in contact with the entire surface of the gas inlet part except for the gas inlet hole and is made to apply a uniform contact pressure from the nozzle to the entire surface of the gas inlet part except for the gas inlet hole, and thereby a mark and a scratch by the nozzle on the gas inlet part are prevented from

being generated, and

wherein the gas inlet part is made slidable with respect to the top end surface, and thereby adhesion between the gas inlet part and the top end surface is prevented for the positioning of the container.