ABSTRACT OF THE DISCLOSURE

A purge gas flow rate in a carrier that houses a smaller number of articles than a usual number is measured. The flow rate of the purge gas supplied from a nozzle of a shelf support in a rack is measured by a measurement unit. The measurement unit includes: a substrate; a gas introduction section provided on the bottom surface of the substrate and configured to introduce the purge gas when coming into contact with the nozzle of the shelf support, while keeping a contact portion to the nozzle airtight with a load from the substrate; a circuit unit including a flowmeter for measuring the purge gas flow rate and a power supply, and a plurality of legs displacable in the vertical direction with respect to the substrate and making a part of the weight of the measurement unit supported on the shelf support.