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(71) Applicant: FLUOROWARE, INC. [US/US]; 102 Jonathan Boulevard North, Chaska, MN 55318 (US).

(72) Inventor: NYSETH, David, L.; 17330 County Road 24, Plymouth, MN 55447 (US).

(74) Agents: CHRISTENSEN, Douglas, J. et al.; Palmatier, Sjoquist & Helget, Suite 501, 6600 France Avenue South, Minneapolis, MN 55435 (US).

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(54) Title: WAFER CUSHIONS FOR WAFER SHIPPER

(57) Abstract

The present invention is a shipping container for safely storing articles such as semiconductor wafers. The shipping container has two sidewalls sealingly connected to two end walls to form a generally rectangular interior wafer confinement area. A top cover and a bottom cover are removably attached to the container to protect the wafers during shipping and storage and provide access to the wafers for processing. The wafers are securely held in place in the carrier by a cushioning means to prevent damage to the wafers. Furthermore, the wafers are locked into place to prevent contamination by the wafers generating particles in the wafer confinement area by rubbing against the carrier. The cushioning means for accommodating the flexing of the cover supports and suspends wafers in the wafer confinement area. The cushioning means extends from the top cover and has a plurality of wafer engaging edges. Each edge is formed in a convex arcuate shape with respect to a centerline of the carrier. The arcuate shape may be formed by an initial arcuate shape in the cover of the shipping device or an arcuate shaped fin extending from the cover of the shipping device. The cushioning means has a configuration to compress when engaged by the wafer to secure the wafer while spacing it from the top cover. The cushioning means may have a continuous wafer engaging edge along the length of the fin or it may be separated into wafer engaging tabs or fingers, each tab or finger individually engaging a wafer. The bottom cover may also have a cushioning means engaging and spacing the wafers from the bottom cover. The structure of the cushioning means on the bottom cover is designed to bend outwardly to lock the wafers from rotating in the shipping device.

