Panasonic CONNECT



The perfect dry etching equipment for silicon and compound semiconductors.

APX300 Plasma Dicer

Plasma dicing is becoming increasingly attractive in the semiconductor market. Dies are becoming smaller and thinner and manufacturers are facing difficulties such as increasing material loss due to the width of the dicing line, mechanical damage to the dies from chipping and increasingly longer processing times due to line-by-line mechanical dicing. Panasonic's APX300 Plasma Dicer solves these challenges and simultaneously provides a higher quality product with a lower cost of production. Features and benefits of Panasonic's APX300 Plasma DicerPlasma dicing requires a dicing street mask. After the mask is applied to the surface of the wafer and the dicing streets are exposed, the plasma process etches the exposed streets by a chemical reaction. By using a chemical etching process, a chipping-free and particle-free process is achieved. Thanks to the use of mask patterning, narrower street widths are possible – allowing more chips to be designed onto the wafer. Furthermore, the mask patterning allows complete flexibility in chip size, shape and position. The benefits of the Panasonic APX300 Plasma Dicer are: Particle-free and damage-free processHigher chip strengthYield improvementsThe Panasonic APX300 is available in a stand-alone single chamber (1 chamber) or a multi chamber (1, 2, or 3 chambers)

Key Features

- Particle-free and damage-free process
- Higher chip strength
- Yield improvements

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APX300 Plasma Dicer

https://ap.connect.panasonic.com/id/en/apx300-plasma-dicer

Dimensions (mm)	[Load lock wafer Handling] W 1350 x D 2230 x H 2000 (Exclude touch panel, operation section and signal tower)[Load lock wafer Handling] W 1375 x D 2600 x H 2000 (Exclude touch panel, operation section and signal tower)W 1350 × D 2230 × H 2000 mm (Single chamber system (Optional transfer unit attachment type)*The transfer unit (optional) is of the vacuum load lock supply type using dedicated cassettes.
Plasma source	ICP Plasma
Process gas	4 Line (standard) (Maximum 6 lines : Fluoride Gas, Ar, O2, He, etc.)
Wafer size	ϕ200 mm (standard), or ϕ300 mm (with ring frame) * For other wafer sizes, please contact us.
Mass (Weight)	2 330 kg (differs depending on machine configuration)
Power Source	3-phase AC 200 / 208 / 220 / 230 / 240 ±10 V, 50 / 60 Hz, 21.0 kVA* 2-line 3-phase power source, and this shows the total. Peripheral devices, such as dry pump and chiller, are not included.
Pneumatic Source	0.5 MPa ~ 0.7 MPa, 250 L/min (A.N.R.)
N2 Source	0.1 MPa ~ 0.2 MPa, 50 L/min (A.N.R.)
Model Number	NM-EFE4AA-D