



Laser Dicer

ML300

MAHOH DICING MACHINE

High performance laser dicing machine for 300 mm wafers with SDE.

In this system, a modification layer is formed inside the Si wafer through optical damage called multiphoton absorption, and chips are segmented at this point. In ML300, the back surface of the wafers is exposed to Laser light whilst the surface protection tape used for the back-grinding process is left attached.



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ML300 MAHOHDICING MACHINE Specifications

Applicable wafer size		Circular wafer: 8, 12 inches diameter
X-axis	Stroke	560 mm
	Cutting feed rate	0.1 mm to 600 mm/sec
	Positioning resolution	0.002 mm
	Straightness	0.0015 mm / 350 mm
Y-axis	Stroke	427 mm
	Driving speed	100 mm/sec max
	Positioning resolution	0.0002 mm (closed-loop control)
	Positioning accuracy	0.002 mm / 320 mm
Z-axis	Stroke	9 mm
	Driving speed	20 mm/sec max
	Positioning resolution	0.0001 mm (closed-loop control)
	Positioning accuracy	0.001 mm / 1 mm

Others

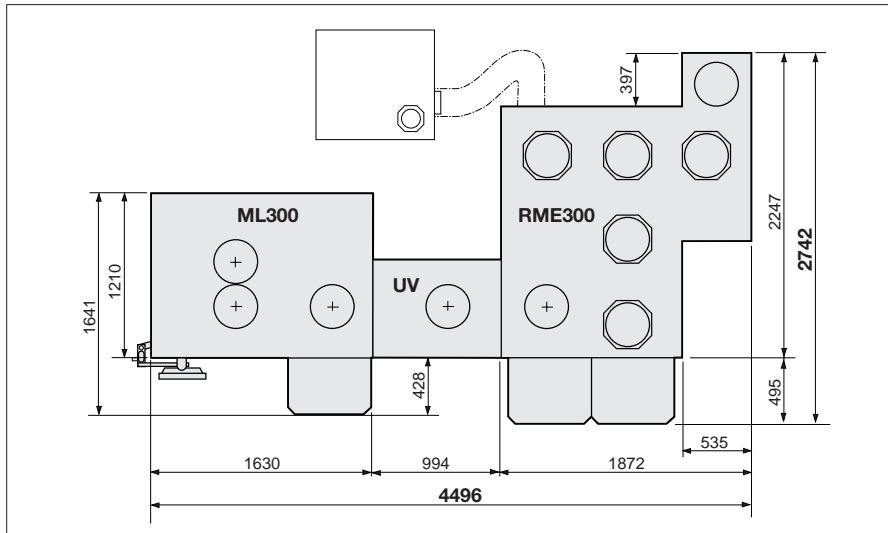
Power supply	Supply voltage: Selected from 200/220/240/380/415 V AC \pm 10% 3 phase, 50 to 60 Hz.
Power consumption	4.0 kVA max
Compressed air	Pressure: 0.5 to 0.7 MPa
N ₂ gas	Pressure: 0.5 to 0.7 MPa
Thermal regulator for water for laser cooling	Pressure: 0.2 to 0.5 MPa
Dimensions	1,630 ^W × 1,641 ^D × 1,986 ^H mm
Weight	1,900 kg

Options

By connecting a UV irradiator with RME300 in-line, the following processes can be conducted automatically.

- Laser processing
- UV irradiate to BG tape
- Dicing tape mounting
- BG tape removal
- Dicing tape expansion

ML300RME Equipment Configuration



"Stealth Dicing" is new laser dicing technology developed by Hamamatsu Photonics.



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Specifications and other descriptions may be changed for product improvement without any notice.