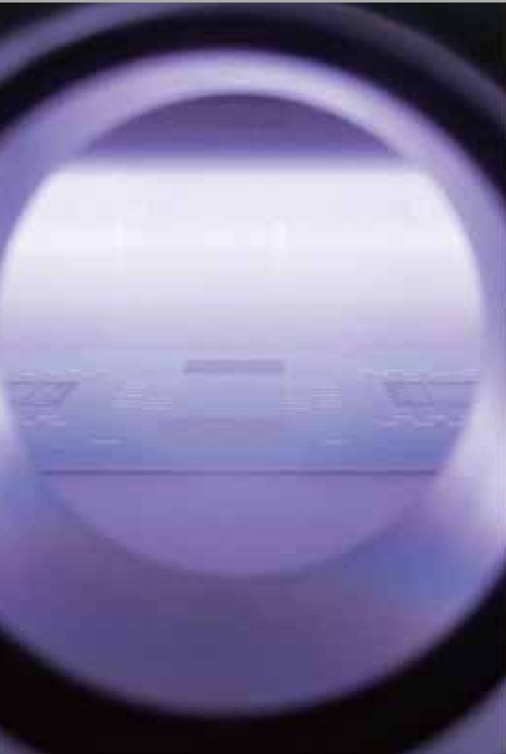
Panasonic
BUSINESS

2020
IC Assembly System
catalog
Plasma cleaner



● Surface cleaning and modification of wafers and substrates improve bondability of metal and adhesion of resin.

● Increasing process number of wafers and substrates in the same time by enlarging vacuum chamber capacity improves productivity.

● Panasonic original plasma monitoring system suppresses abnormal discharge and newly introduced traceability function ensures process quality

● Flexible machine concept adapts versatile production model and supports process operation.

● Capability of Φ300mm wafer (with/without : dicing ring) contributes to wafer level package manufacturing.

Model ID **PSX307A**
Model No.NM-EFP3A

For substrate & wafer level PKG

*There are cases the options and customer's specifications don't apply for machinery directive and EMC directive

Model ID	PSX307A
Model No.	NM-EFP3A
Cleaning Method	Parallel plate RF back-sputtering method
Gas for Electrical Discharge *1	Ar［Option：O_2, O_2 + He］
Power source	1-phase AC 200 / 208 / 220 / 230 / 240 ± 10 V, 50 / 60 Hz , 6.00 kVA
Pneumatic source	0.49 MPa、50 L/min ［A.N.R］
Dimension *2	W 900 mm× D 1 150 mm × H 1 650 mm
Mass *3	630 kg

Specification（Target work）*4	Substrate	Wafer with dicing ring	Wafer without dicing ring
Work Size *5	L 50 mm × W 30 mm *6～ L 350 mm × W 350 mm	Φ300mm *7	Φ300mm

※Please refer to the specifications on details
※Pre-confirmation by customer's works is required.

※1 : If the optional oxygen gas is selected as electric discharge gas, nitrogen gas is also required to dilute exhaust
※2 : Excluding touch panel, emergency stop switch and signal tower.
※3 : In case of full option
※4 : Please select a specification among three
※5 : Please consult us about the substrate thickness
※6 : Please contact us for the substrate with depth < 30mm
※7 : outer diameter of ring : □380mm

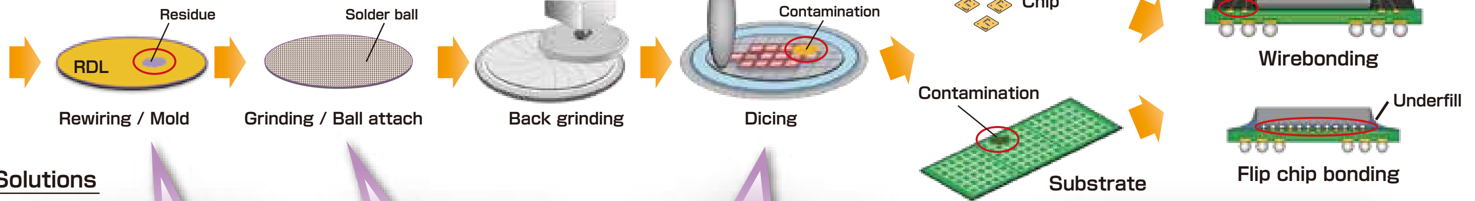
Model ID **PSX307A**
Model No.NM-EFP3A

Achieve high quality production by plasma cleaning and modification from wafer level to substrate level assembly process

Wafer Level Process — Without ring / With ring

Substrate Level Process — Substrate and Tray

From front process



Solutions

Before insulation layer coating
・Improve adhesiveness of wafer

After RDL on insulation layer
・Remove the residue after photolithography

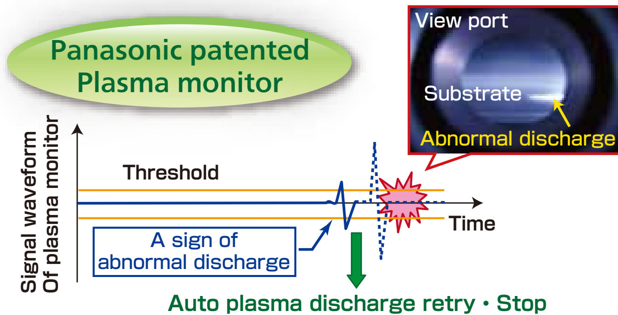
Before ball attach
・Improve bonding quality of pad

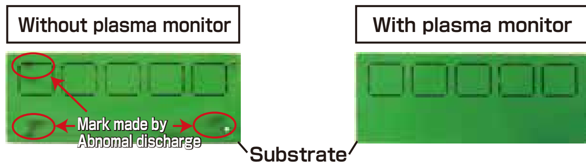
After ball attach
・Remove the residue of stiffening resin

After dicing
・Improve die attach ability
・Improve flip chip bonding ability

Pad cleaning / Surface activation
・Improve wirebondability
・Improve mold ability
・Improve underfill wettability

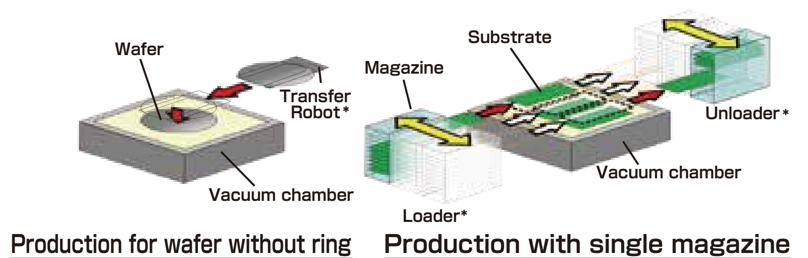
High quality management with plasma monitor



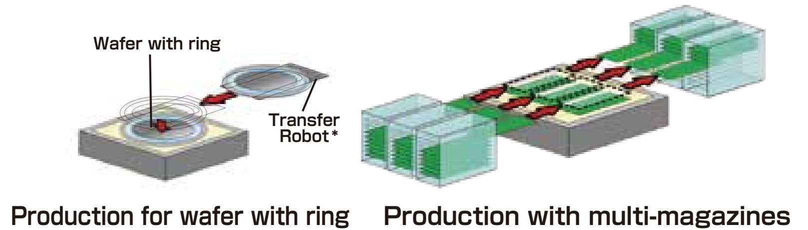


- Avoid substrate damage by abnormal discharge and prevent defect substrate passing to next process
- Record the log data of monitor for each substrates（Option）

Flexibility for various type of production



Production for wafer without ring
Production with single magazine



Production for wafer with ring
Production with multi-magazines

* Transfer robot, loader/unloader are prepared by customer.

⚠ Safety Cautions

●Please read the User's Manual carefully to familiarize yourself with safe and effective usage procedures.	●To ensure safety when using this equipment, all work should be performed according to that as stated in the supplied Operating Instructions. Read your operating instruction manual thoroughly.

Panasonic Group products are built with the environment in mind.

Please check the homepage for the details.
panasonic.com/global/corporate/sustainability

Inquiries…

Panasonic Corporation
Process Automation Business Division

3-1-1 Inazu-cho, Toyonaka City, Osaka 561-0854, Japan
TEL +81-6-6866-8630
FAX +81-6-6862-0422

All data as of January 1, 2020
Ver.January 1, 2020

© Panasonic Corporation 2020

Panasonic®

●Changes in specifications and appearance may be made without notice for product improvement.
●Homepage industrial.panasonic.com/ww/fa-jisso