

Wafer Level Microwave Plasma Treatment R-300R

ESD-Free Plasma Solution with High Throughput for Bare Wafer



Diverse microwave plasma applications for surface treatment

- Surface cleaning and activation prior to wire bonding or molding
- Plasma de-smear and de-flash process for EMC residues removal
- Anti-tackiness treatment
- Photoresist removal and descum in bumping process

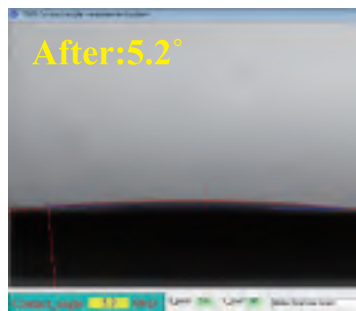
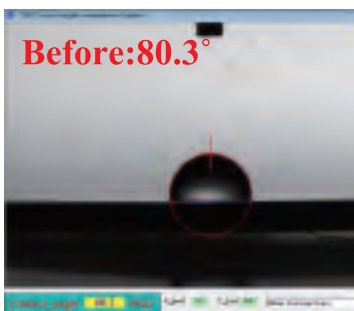
High uniformity performance without ESD

- Slot antenna design to enhance uniformity > CPK 1.67
- Microwave plasma for non-ESD solution and isotropic etching process

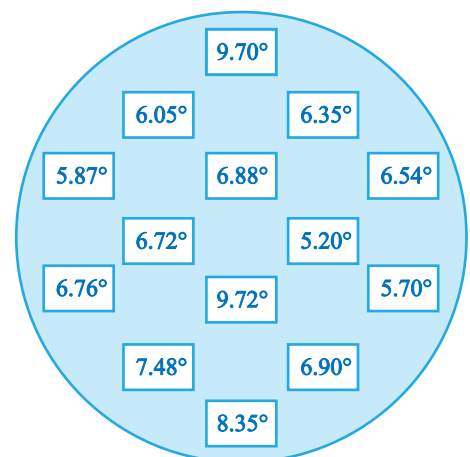
Dual arm robot and double chamber design to achieve high UPH

- Dual arm, 4 axis robots to transfer two wafers at a time
- With double chamber design, 2 ports that can handle 8" and 12" bare wafer

Contact Angle Result



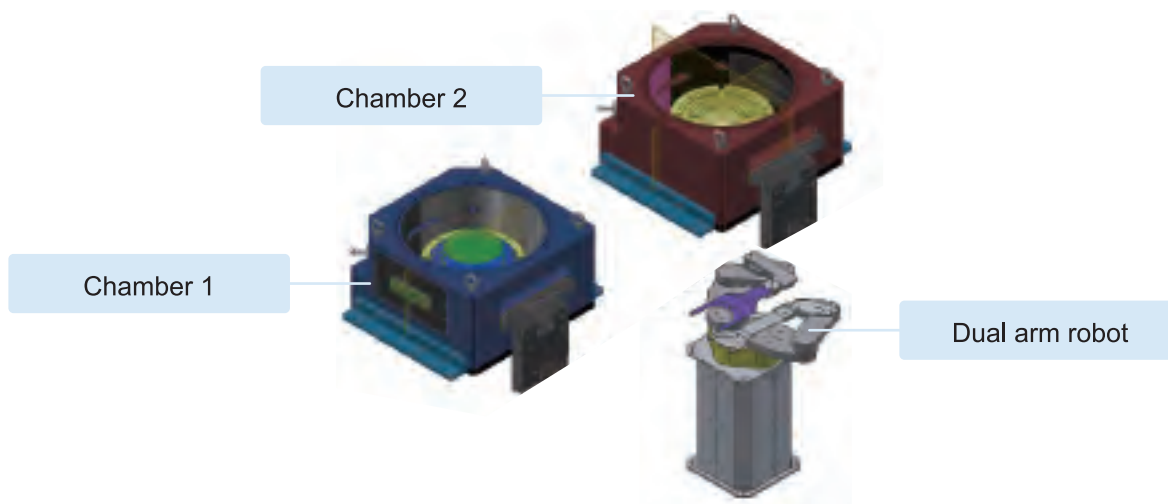
Super hydrophilic surface after plasma process



Bare Silicon Wafer



Double Chamber and Dual Arm Robot Design



Specification

Plasma Source	MW 1250W, 2.45GHz
Process Gas	Ar/ O ₂ /N ₂ /CF ₄
Product Size	6"/8"/12" Bare wafer
Process Temperature	40 – 70 °C
Process Pressure	0.05 – 1 Torr
Base Pressure	< 0.03 Torr
Chuck Design	Two chambers with rotary chuck as option
WPH	60 pcs/ Plasma @ 20 Secs

Machine Layout

