

# We develop innovative processes that support miniaturization, new materials, higher productivity and yields improvement.

## Semiconductor manufacturing equipment

### Wafer process



#### Wafer inspection equipment

Equipment that contributes to improved yields by automatic detection of minute defects on both faces and the edge of wafers, and by advance prevention of cracks or chips that can appear in later processes.



#### Chemical dry etching equipment

A radiation-free etching equipment utilizing a plasma which is generated in a completely separated area from the etching chamber.



#### Wafer wet cleaning equipment

Equipment for removing dust, stains and residual film that can produce defects from the surface of wafers, by using various tools with chemicals and DI water.



#### Ashing equipment

Equipment for removing the photo resist used as a mask during etching to form circuit patterns.

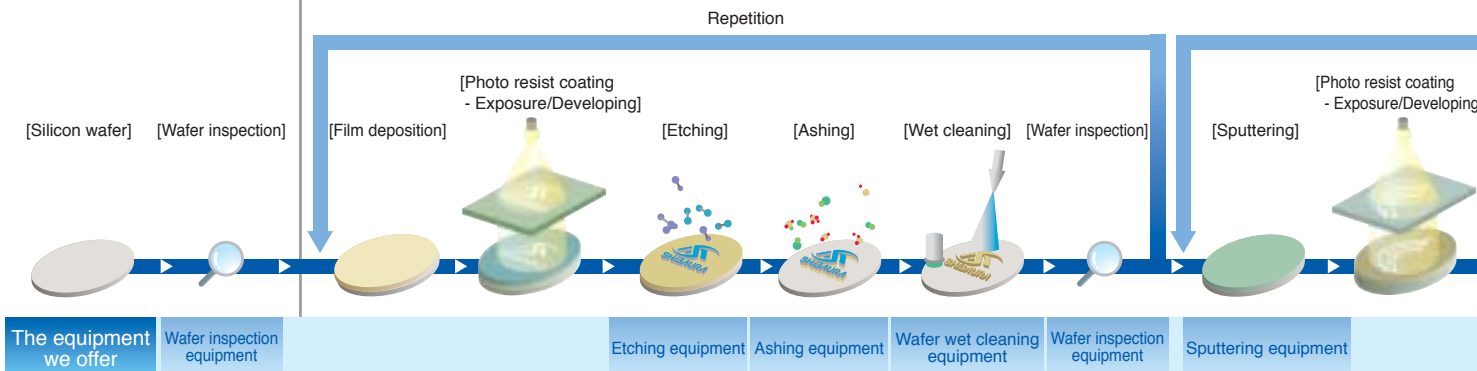


#### Wafer marker

Equipment for printing control number and other data on wafers.

### Front end of line (FEOL)

### Back end of line (BEOL)



We endeavor to deliver equipment that supports the advances in integration and performance that miniaturization and new materials are bringing to semiconductor devices.

We also develop new technologies that achieve a balance between high productivity and economic efficiency in providing eco-friendly products.

From the wafer process to the assembly process, our goal is to meet diverse customer needs with specialized equipment.



## Semiconductor Manufacturing Equipment



### Vacuum bonding equipment for semiconductors

Bonding equipment for thin wafer process.



### Sputtering equipment for semiconductors

Optimized equipment for back-side electrode coating on power devices or under bump metals, and multi-layer film coating.

## Assembly process



### Die bonder

Optimized high accuracy, high bond force and thinner die equipment for 3D packages, such as flash memories and system LSI.



### Flip chip bonder

Equipment optimized for the solder reflow process on 300mm wafers.



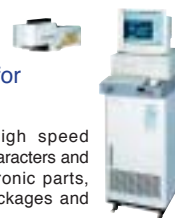
### Flip chip bonder for COF

Equipment optimized for LCD driver packages.



### Dual head flip chip bonder

Equipment optimized for RFID and high frequency devices.



### Laser marker for package

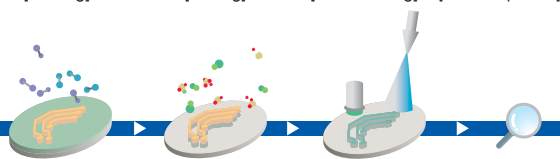
Equipment for high speed drawing of clear characters and symbols on electronic parts, semiconductor packages and switches.

### Inner lead bonder

Inner lead bonder for both TAB/COF.

Repetition

[Etching] [Ashing] [Wet cleaning] [Wafer inspection]



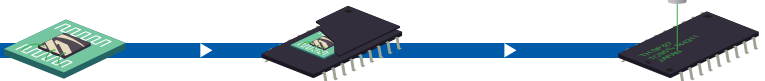
Etching equipment Ashing equipment Wafer wet cleaning equipment Wafer inspection equipment

## Assembly process

[Bonding]

[Molding]

[Marking]



Bonding equipment Molding equipment Laser marker