Inner Glass Marking System

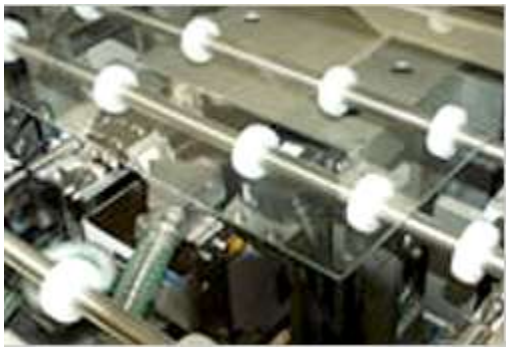
Performing parallel processing for the loading/unloading of substrates and marking with multiple laser heads achieve a high throughput.

Features

This system carries out the marking of 2D codes or characters for traceability or process control on the inner surface of glass plates used for the production of thin-film photovoltaic cells or FPD (LCD or PDP) substrates.

SHG lasers or THG lasers creates clean markings on the inner surface of glass plates without generating any particles. The conveyer for this system receives glass substrates from the conveyer for the preceding process, performs the marking (2D codes and characters) and 2D code reading, and then discharges them to the conveyer for the next process.
Through the simultaneous parallel processing of two main components, this system is able to perform a sequence of operations, such as substrate positioning, 2D code/character marking, 2D code reading and verification, and loading/unloading of substrates.

- By performing parallel processing for the loading/unloading of substrates and marking with multiple laser heads, this system offers a high throughput.
- By reading and verifying codes immediately after marking, it provides high reliability.
  It performs marking without generating particles.
- There is no need for any additional pre- or post-processing.
- By using independently controlled auto focusing for each laser head, it provides stable marking.



Specifications

Laser	SHG or THG laser
Marking area	Φ30mm
Spot size	Φ5μm
Substrate size	Size: Up to the eighth generation substrate, thickness: 0.7mm or thicker
Takt time	50 sec. *
Marking positioning accuracy	200μm
Workpiece conveying method	Belt conveyor
Focus	Auto-focus

*In case of processing four sides of the eighth generation substrate by two heads.